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<110> Fishman, Mark C.

<120> Methods for Diagnosing and Treating Heart Disease

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<211> 81940

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (133)..(80910)

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Arg Thr Lys Glu Ile Ile Thr Thr Lys Gln Glu Gln Met His Val Thr	495	500	505	
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His Glu Gln Ile Arg Lys Glu Thr Glu Lys Thr Phe Val Pro Lys Val	510	515	520	525
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Val Ile Ser Ala Ala Lys Ala Lys Glu Gln Glu Thr Arg Ile Ser Glu	530	535	540	
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Lys Arg Glu Gln Val Gln Ile Thr Gln Glu Lys Met Arg Lys Glu Ala	590	595	600	605
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Glu Lys Thr Ala Leu Ser Thr Ile Ala Val Ala Thr Ala Lys Ala Lys	610	615	620	
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Glu Ala Val Ala Thr Val Val Val Ala Ala Val Asp Gln Ala Arg Val Arg	655	660	665	
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Glu Pro Arg Glu Pro Gly His Leu Glu Glu Ser Tyr Ala Gln Gln Thr	670	675	680	685

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Asp Leu Thr Thr Glu Arg Leu Val His Val Asp Lys Arg Pro Arg Thr	
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Ala Lys Val Thr Glu Thr Ala Arg Val Pro Ala Pro Val Glu Ile Pro	
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Glu Gly Glu Ser Val Thr Leu Glu Cys His Ile Ser Gly Tyr Pro Ser	

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Pro Thr Val Thr Trp Tyr Arg Glu Asp Tyr Gln Ile Glu Ser Ser Ile	930	935	940	
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Asp Phe Gln Ile Thr Phe Gln Ser Gly Ile Ala Arg Leu Met Ile Arg	945	950	955	
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Glu Glu Phe Glu Lys Glu Thr Thr Ala Val Thr Glu Lys Phe Thr Thr	990	995	1000	1005
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Glu Glu Lys Arg Phe Val Glu Ser Arg Asp Val Val Met Thr Asp	1010	1015	1020	
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Thr Ser Leu Thr Glu Glu Gln Ala Gly Pro Gly Glu Pro Ala Ala	1025	1030	1035	
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Pro Tyr Phe Ile Thr Lys Pro Val Val Gln Lys Leu Val Glu Gly	1040	1045	1050	
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Gly Ser Val Val Phe Gly Cys Gln Val Gly Gly Asn Pro Lys Pro	1055	1060	1065	
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His Val Tyr Trp Lys Lys Ser Gly Val Pro Leu Thr Thr Gly Tyr	1070	1075	1080	
aga tac aaa gtg agt tac aac aaa caa acc ggt gaa tgc aag ctg				3417
Arg Tyr Lys Val Ser Tyr Asn Lys Gln Thr Gly Glu Cys Lys Leu	1085	1090	1095	
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Val Ile Ser Met Thr Phe Ala Asp Asp Ala Gly Glu Tyr Thr Ile	1100	1105	1110	
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Val Gly Glu Thr Ala	Pro Gly Phe Val Tyr	Ser Glu Tyr Glu Lys	
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Asp Thr Val Val Val	Arg Thr Tyr Val Glu	Asp Gln Glu Phe His	
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Gly Phe Asp Leu Arg	Ile Lys Asn Tyr Arg	Ile Leu Glu Gly Met	
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ggt gtc act ttt cat	tgc aag atg tct gga	tat cca tta cca aag	3957
Gly Val Thr Phe His	Cys Lys Met Ser Gly	Tyr Pro Leu Pro Lys	
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att gct tgg tac aaa	gat ggc aag cgc atc	aaa cat gga gaa aga	4002
Ile Ala Trp Tyr Lys	Asp Gly Lys Arg Ile	Lys His Gly Glu Arg	
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Tyr Gln Met Asp Phe	Leu Gln Asp Gly Arg	Ala Ser Leu Arg Ile	
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Pro Val Val Leu Pro	Glu Asp Glu Gly Ile	Tyr Thr Ala Phe Ala	
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Ser Asn Ile Lys Gly	Asn Ala Ile Cys Ser	Gly Lys Leu Tyr Val	
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Glu Pro Val Ser Arg	Ile Arg Ser Leu Ser	Pro Arg Ser Val Ser	

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Arg Ser Pro Ile Arg	Met Ser Pro Ala Arg	Met Ser Pro Ala Arg				
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Met Ser Pro Ala Arg	Met Ser Pro Ala Arg	Met Ser Pro Gly Arg				
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Gly Arg Asp Thr Thr	Arg Cys Lys Val Asn	Val Glu Val Glu Phe	
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Ala Glu Pro Glu Pro	Glu Arg Lys Leu Ile	Ile Pro Arg Gly Thr	
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Tyr Arg Ala Lys Glu	Ile Ala Ala Pro Glu	Leu Glu Pro Leu His	
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Lys Glu Lys Gln Gln	Lys Pro Phe Phe Lys	Lys Lys Leu Thr Ser	
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Leu Arg Leu Lys Arg	Phe Gly Pro Ala His	Phe Glu Cys Arg Leu	
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Thr Pro Ile Ser Asp	Pro Thr Met Val Val	Glu Trp Leu His Asp	
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Gly Lys Pro Leu Glu	Ala Ala Asn Arg Leu	Arg Met Ile Asn Glu	
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Ser Gly Ile Ile Thr	Cys Arg Ala Thr Asn	Lys Tyr Gly Thr Asp	
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Glu Glu Leu Glu Arg	Met Ala His Glu Gly	Ala Leu Thr Gly Val	
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Thr Thr Asp Gln Lys	Glu Lys Gln Lys Pro	Asp Ile Val Leu Tyr	

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Cys	Arg	Val	Thr	Gly	Tyr	Pro	Gln	Pro	Lys	Val	Asn	Trp	Tyr	Leu	
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				1850					1855					1860	
aca	ggg	gaa	gtg	aag	gtc	acc	gag	gaa	aat	cct	gaa	ggg	gtg	ata	5757
Thr	Gly	Glu	Val	Lys	Val	Thr	Ala	Glu	Asn	Pro	Glu	Gly	Val	Ile	
				1865					1870					1875	
gag	cat	aaa	gtg	aag	ctt	gag	att	caa	cag	agg	gaa	gat	ttt	agg	5802
Glu	His	Lys	Val	Lys	Leu	Glu	Ile	Gln	Gln	Arg	Glu	Asp	Phe	Arg	
				1880					1885					1890	
tct	gtc	ctt	agg	aga	gct	cct	gaa	cca	agg	cct	gag	ttt	cac	gta	5847
Ser	Val	Leu	Arg	Arg	Ala	Pro	Glu	Pro	Arg	Pro	Glu	Phe	His	Val	
				1895					1900					1905	
cat	gaa	cca	gga	aag	ctt	cag	ttt	gaa	gta	caa	aaa	gtg	gat	aga	5892
His	Glu	Pro	Gly	Lys	Leu	Gln	Phe	Glu	Val	Gln	Lys	Val	Asp	Arg	
				1910					1915					1920	
cct	gtt	gac	acc	act	gaa	acc	aaa	gaa	gtt	gtg	aag	ttg	aaa	agg	5937
Pro	Val	Asp	Thr	Thr	Glu	Thr	Lys	Glu	Val	Val	Lys	Leu	Lys	Arg	
				1925					1930					1935	
gct	gaa	aga	att	acc	cat	gaa	aaa	gtg	cct	gaa	gag	tcg	gaa	gag	5982
Ala	Glu	Arg	Ile	Thr	His	Glu	Lys	Val	Pro	Glu	Glu	Ser	Glu	Glu	
				1940					1945					1950	
ctg	cgc	agt	aaa	ttc	aag	cgc	aga	aca	gaa	gag	ggc	tat	tat	gaa	6027
Leu	Arg	Ser	Lys	Phe	Lys	Arg	Arg	Thr	Glu	Glu	Gly	Tyr	Tyr	Glu	
				1955					1960					1965	
gcc	att	acc	gct	gtg	gag	ctc	aag	tct	cga	aag	aag	gat	gaa	tcc	6072
Ala	Ile	Thr	Ala	Val	Glu	Leu	Lys	Ser	Arg	Lys	Lys	Asp	Glu	Ser	
				1970					1975					1980	
tat	gag	gaa	ctc	ctc	agg	aag	aca	aaa	gat	gaa	ctt	ctc	cac	tgg	6117
Tyr	Glu	Glu	Leu	Leu	Arg	Lys	Thr	Lys	Asp	Glu	Leu	Leu	His	Trp	
				1985					1990					1995	
acc	aaa	gag	tta	act	gaa	gag	gaa	aag	aaa	gct	ctt	gcc	gaa	gaa	6162
Thr	Lys	Glu	Leu	Thr	Glu	Glu	Glu	Lys	Lys	Ala	Leu	Ala	Glu	Glu	
				2000					2005					2010	

ggc aaa atc acg att cca act ttt aaa cct gac aag att gaa cta Gly Lys Ile Thr Ile Pro Thr Phe Lys Pro Asp Lys Ile Glu Leu 2015 2020 2025	6207
agt cct agt atg gag gct cca aaa atc ttc gaa aga atc cag agc Ser Pro Ser Met Glu Ala Pro Lys Ile Phe Glu Arg Ile Gln Ser 2030 2035 2040	6252
caa aca gtg ggc caa gga tct gat gca cac ttc cgg gtc aga gtc Gln Thr Val Gly Gln Gly Ser Asp Ala His Phe Arg Val Arg Val 2045 2050 2055	6297
gtg ggg aaa cca gac ccc gaa tgt gaa tgg tac aaa aat ggt gtc Val Gly Lys Pro Asp Pro Glu Cys Glu Trp Tyr Lys Asn Gly Val 2060 2065 2070	6342
aaa att gaa cgg tct gac cgg atc tac tgg tac tgg ccc gaa gac Lys Ile Glu Arg Ser Asp Arg Ile Tyr Trp Tyr Trp Pro Glu Asp 2075 2080 2085	6387
aat gtt tgt gaa ttg gtc ata aga gat gtg act gct gag gac tct Asn Val Cys Glu Leu Val Ile Arg Asp Val Thr Ala Glu Asp Ser 2090 2095 2100	6432
gcc agc atc atg gta aaa gcc atc aac ata gct gga gaa acc tcc Ala Ser Ile Met Val Lys Ala Ile Asn Ile Ala Gly Glu Thr Ser 2105 2110 2115	6477
agt cac gca ttc tta ctt gtc caa gcc aag caa ttg atc act ttc Ser His Ala Phe Leu Leu Val Gln Ala Lys Gln Leu Ile Thr Phe 2120 2125 2130	6522
aca cag gaa tta caa gat gtt gtt gct aag gaa aaa gac act atg Thr Gln Glu Leu Gln Asp Val Val Ala Lys Glu Lys Asp Thr Met 2135 2140 2145	6567
gca acc ttt gaa tgt gaa act tca gaa cca ttt gtc aaa gtg aaa Ala Thr Phe Glu Cys Glu Thr Ser Glu Pro Phe Val Lys Val Lys 2150 2155 2160	6612
tgg tat aaa gat ggt atg gag gtt cat gag gga gat aaa tac agg Trp Tyr Lys Asp Gly Met Glu Val His Glu Gly Asp Lys Tyr Arg 2165 2170 2175	6657
atg cac tct gac aga aag gtt cac ttc ctc tcc ata ctg acc att Met His Ser Asp Arg Lys Val His Phe Leu Ser Ile Leu Thr Ile 2180 2185 2190	6702
gat acg tct gat gct gaa gat tac agc tgt gta ctt gtg gaa gat Asp Thr Ser Asp Ala Glu Asp Tyr Ser Cys Val Leu Val Glu Asp 2195 2200 2205	6747
gaa aat gtc aaa acg act gct aaa ctt att gtt gaa ggt gca gtt Glu Asn Val Lys Thr Thr Ala Lys Leu Ile Val Glu Gly Ala Val 2210 2215 2220	6792
gtt gag ttt gtg aaa gaa ctt cag gac ata gaa gtt cca gaa tca Val Glu Phe Val Lys Glu Leu Gln Asp Ile Glu Val Pro Glu Ser	6837

	2225	2230	2235	
tat tca gga gaa tta	gag tgc att gta tcc	cca gaa aat ata gaa	6882	
Tyr Ser Gly Glu Leu	Glu Cys Ile Val Ser	Pro Glu Asn Ile Glu		
	2240	2245	2250	
gga aaa tgg tat cat	aat gat gtg gag ctt	aaa tcc aat ggc aaa	6927	
Gly Lys Trp Tyr His	Asn Asp Val Glu Leu	Lys Ser Asn Gly Lys		
	2255	2260	2265	
tat aca att aca tct	cgt cgt gga cgt cag	aac ctc acg gtc aag	6972	
Tyr Thr Ile Thr Ser	Arg Arg Gly Arg Gln	Asn Leu Thr Val Lys		
	2270	2275	2280	
gat gta acc aag gag	gac cag gga gaa tac	agc ttt gtc atc gac	7017	
Asp Val Thr Lys Glu	Asp Gln Gly Glu Tyr	Ser Phe Val Ile Asp		
	2285	2290	2295	
ggg aaa aag aca acc	tgt aaa tta aag atg	aaa ccc cgc ccc att	7062	
Gly Lys Lys Thr Thr	Cys Lys Leu Lys Met	Lys Pro Arg Pro Ile		
	2300	2305	2310	
gct atc cta caa gga	ctt agt gac caa aaa	gtc tgt gag ggt gac	7107	
Ala Ile Leu Gln Gly	Leu Ser Asp Gln Lys	Val Cys Glu Gly Asp		
	2315	2320	2325	
att gtt cag ctt gaa	gtt aaa gtc tcc ttg	gaa agt gtg gaa ggc	7152	
Ile Val Gln Leu Glu	Val Lys Val Ser Leu	Glu Ser Val Glu Gly		
	2330	2335	2340	
gtc tgg atg aaa gac	ggc caa gaa gtg cag	ccc agt gac agg gtt	7197	
Val Trp Met Lys Asp	Gly Gln Glu Val Gln	Pro Ser Asp Arg Val		
	2345	2350	2355	
cac att gtg ata gac	aaa caa tct cat atg	ctg ctc att gaa gac	7242	
His Ile Val Ile Asp	Lys Gln Ser His Met	Leu Leu Ile Glu Asp		
	2360	2365	2370	
atg act aag gaa gat	gct gga aat tac tct	ttc acc att cca gcc	7287	
Met Thr Lys Glu Asp	Ala Gly Asn Tyr Ser	Phe Thr Ile Pro Ala		
	2375	2380	2385	
ctt ggc ctc tcc acc	agt ggg cgt gtc tct	gtc tat agt gtg gac	7332	
Leu Gly Leu Ser Thr	Ser Gly Arg Val Ser	Val Tyr Ser Val Asp		
	2390	2395	2400	
gtg ata aca cct cta	aaa gat gtt aat gtg	att gaa ggc acc aag	7377	
Val Ile Thr Pro Leu	Lys Asp Val Asn Val	Ile Glu Gly Thr Lys		
	2405	2410	2415	
gct gtg ctt gaa tgt	aag gtg tca gtc cct	gat gtg act tct gtt	7422	
Ala Val Leu Glu Cys	Lys Val Ser Val Pro	Asp Val Thr Ser Val		
	2420	2425	2430	
aag tgg tac tta aat	gat gaa caa atc aag	cct gat gac cgt gta	7467	
Lys Trp Tyr Leu Asn	Asp Glu Gln Ile Lys	Pro Asp Asp Arg Val		
	2435	2440	2445	

cag gcc att gtg aaa ggt act aaa cag cga cta gtc att aac cga	7512
Gln Ala Ile Val Lys Gly Thr Lys Gln Arg Leu Val Ile Asn Arg	
2450 2455 2460	
act cat gct tca gac gaa gga cct tat aag ctg ata gtt ggc aga	7557
Thr His Ala Ser Asp Glu Gly Pro Tyr Lys Leu Ile Val Gly Arg	
2465 2470 2475	
gtt gaa acc aac tgt aat ctc tct gta gaa aaa att aaa att atc	7602
Val Glu Thr Asn Cys Asn Leu Ser Val Glu Lys Ile Lys Ile Ile	
2480 2485 2490	
aga ggt ctt cgt gac ctt acc tgt aca gaa act caa aat gtg gtg	7647
Arg Gly Leu Arg Asp Leu Thr Cys Thr Glu Thr Gln Asn Val Val	
2495 2500 2505	
ttt gag gtt gag ctg tcc cac tct gga att gat gtc ctg tgg aat	7692
Phe Glu Val Glu Leu Ser His Ser Gly Ile Asp Val Leu Trp Asn	
2510 2515 2520	
ttt aag gac aag gaa atc aag ccc agt tct aaa tat aaa att gaa	7737
Phe Lys Asp Lys Glu Ile Lys Pro Ser Ser Lys Tyr Lys Ile Glu	
2525 2530 2535	
gca cat gga aaa ata tat aaa ttg aca gtt cta aat atg atg aaa	7782
Ala His Gly Lys Ile Tyr Lys Leu Thr Val Leu Asn Met Met Lys	
2540 2545 2550	
gat gat gaa gga aaa tac aca ttt tac gcg gga gaa aat atg aca	7827
Asp Asp Glu Gly Lys Tyr Thr Phe Tyr Ala Gly Glu Asn Met Thr	
2555 2560 2565	
tct gga aaa ctt act gtg gca ggt ggg gcc atc tcc aag cca ctc	7872
Ser Gly Lys Leu Thr Val Ala Gly Gly Ala Ile Ser Lys Pro Leu	
2570 2575 2580	
aca gat cag acc gta gct gaa tcc cag gaa gct gtg ttt gaa tgt	7917
Thr Asp Gln Thr Val Ala Glu Ser Gln Glu Ala Val Phe Glu Cys	
2585 2590 2595	
gaa gtt gcc aac cca gat tcc aaa ggc gaa tgg ttg agg gat ggc	7962
Glu Val Ala Asn Pro Asp Ser Lys Gly Glu Trp Leu Arg Asp Gly	
2600 2605 2610	
aaa cac cta cca ctg act aac aac atc aga agt gag tct gat ggc	8007
Lys His Leu Pro Leu Thr Asn Asn Ile Arg Ser Glu Ser Asp Gly	
2615 2620 2625	
cac aaa agg aga ctt atc att gct gcc acc aaa tta gat gac att	8052
His Lys Arg Arg Leu Ile Ile Ala Ala Thr Lys Leu Asp Asp Ile	
2630 2635 2640	
gga gaa tat acc tac aag gtg gcc acc tcc aaa aca tct gcc aaa	8097
Gly Glu Tyr Thr Tyr Lys Val Ala Thr Ser Lys Thr Ser Ala Lys	
2645 2650 2655	
ctc aaa gtt gaa gct gtc aaa att aag aag act ctg aag aac ctc	8142
Leu Lys Val Glu Ala Val Lys Ile Lys Lys Thr Leu Lys Asn Leu	

	2660	2665	2670	
aca gtg aca gaa aca cag gat gct gtt ttc act gtc gag ctt aca				8187
Thr Val Thr Glu Thr Gln Asp Ala Val Phe Thr Val Glu Leu Thr	2675	2680	2685	
cac cct aat gtc aaa ggt gtc cag tgg atc aaa aat gga gtt gtg				8232
His Pro Asn Val Lys Gly Val Gln Trp Ile Lys Asn Gly Val Val	2690	2695	2700	
ctg gaa tcc aat gaa aag tat gct atc tct gtc aaa gga aca att				8277
Leu Glu Ser Asn Glu Lys Tyr Ala Ile Ser Val Lys Gly Thr Ile	2705	2710	2715	
tac tct ctg agg att aaa aac tgt gcc atc gtg gat gag tct gtt				8322
Tyr Ser Leu Arg Ile Lys Asn Cys Ala Ile Val Asp Glu Ser Val	2720	2725	2730	
tat ggc ttc agg ctt gga agg ctt gga gcc agt gcc aga ctg cac				8367
Tyr Gly Phe Arg Leu Gly Arg Leu Gly Ala Ser Ala Arg Leu His	2735	2740	2745	
gtg gag act gtc aag atc att aaa aag cca aag gat gtg aca gcc				8412
Val Glu Thr Val Lys Ile Ile Lys Lys Pro Lys Asp Val Thr Ala	2750	2755	2760	
ttg gaa aat gcc act gtt gcc ttt gaa gtt agt gtt tcc cat gac				8457
Leu Glu Asn Ala Thr Val Ala Phe Glu Val Ser Val Ser His Asp	2765	2770	2775	
act gtt cca gta aaa tgg ttc cat aag agt gtg gaa att aag cca				8502
Thr Val Pro Val Lys Trp Phe His Lys Ser Val Glu Ile Lys Pro	2780	2785	2790	
agt gac aaa cac aga ctg gtc tca gaa agg aaa gtc cac aag ctg				8547
Ser Asp Lys His Arg Leu Val Ser Glu Arg Lys Val His Lys Leu	2795	2800	2805	
atg ctg cag aac atc tcc ccc tca gat gct ggg gaa tac aca gct				8592
Met Leu Gln Asn Ile Ser Pro Ser Asp Ala Gly Glu Tyr Thr Ala	2810	2815	2820	
gtg gtc ggg caa ttg gaa tgc aaa gca aaa ctg ttt gtg gag aca				8637
Val Val Gly Gln Leu Glu Cys Lys Ala Lys Leu Phe Val Glu Thr	2825	2830	2835	
tta cat att aca aaa acc atg aaa aat atc gag gtg cct gag acc				8682
Leu His Ile Thr Lys Thr Met Lys Asn Ile Glu Val Pro Glu Thr	2840	2845	2850	
aaa act gcc tct ttt gag tgt gag gtg tcc cac ttc aat gtc cct				8727
Lys Thr Ala Ser Phe Glu Cys Glu Val Ser His Phe Asn Val Pro	2855	2860	2865	
tcc atg tgg ctg aag aat ggt gtg gaa att gag atg agt gaa aag				8772
Ser Met Trp Leu Lys Asn Gly Val Glu Ile Glu Met Ser Glu Lys	2870	2875	2880	

ttc aag ata gtt gtg	cag gga aaa ctc cat	cag ctg atc atc atg	8817
Phe Lys Ile Val 2885	Gln Gly Lys Leu His 2890	Gln Leu Ile Ile Met 2895	
aac acc agc aca gag	gac tcg gca gaa tac	aca ttt gtc tgt ggc	8862
Asn Thr Ser Thr 2900	Asp Ser Ala Glu Tyr 2905	Thr Phe Val Cys Gly 2910	
aat gac caa gtc agt	gcc acc ctg aca gtc	act cca atc atg att	8907
Asn Asp Gln Val 2915	Ala Thr Leu Thr Val 2920	Thr Pro Ile Met Ile 2925	
act tcc atg ctg aaa	gac atc aac gct gaa	gaa aaa gac act att	8952
Thr Ser Met Leu 2930	Asp Ile Asn Ala Glu 2935	Glu Lys Asp Thr Ile 2940	
act ttt gag gtg aca	gtg aac tat gaa ggc	atc tct tac aaa tgg	8997
Thr Phe Glu Val 2945	Val Asn Tyr Glu Gly 2950	Ile Ser Tyr Lys Trp 2955	
tta aag aat ggt gtg	gaa atc aaa tca act	gac aag tgc cag atg	9042
Leu Lys Asn Gly 2960	Glu Ile Lys Ser Thr 2965	Asp Lys Cys Gln Met 2970	
aga acc aaa aag ctc	aca cac tca ctg aac	atc agg aat gtt cac	9087
Arg Thr Lys Lys 2975	Thr His Ser Leu Asn 2980	Ile Arg Asn Val His 2985	
ttt ggg gat gct gct	gac tac acc ttt gtg	gct gga aaa gca aca	9132
Phe Gly Asp Ala 2990	Asp Tyr Thr Phe Val 2995	Ala Gly Lys Ala Thr 3000	
tca aca gcc aca ctt	tat gtg gaa gct cgt	cat ata gaa ttt agg	9177
Ser Thr Ala Thr 3005	Tyr Val Glu Ala Arg 3010	His Ile Glu Phe Arg 3015	
aaa cac att aag gac	att aag gta ctg gag	aag aag cga gcc atg	9222
Lys His Ile Lys 3020	Ile Lys Val Leu Glu 3025	Lys Lys Arg Ala Met 3030	
ttt gaa tgt gaa gtt	tct gaa cct gac atc	act gta cag tgg atg	9267
Phe Glu Cys Glu 3035	Ser Glu Pro Asp Ile 3040	Thr Val Gln Trp Met 3045	
aaa gat gac cag gaa	ctg cag atc aca gac	aga ata aag att cag	9312
Lys Asp Asp Gln 3050	Leu Gln Ile Thr Asp 3055	Arg Ile Lys Ile Gln 3060	
aag gag aaa tat gtc	cac cgc ctt ctg atc	cca tcc acc cgg atg	9357
Lys Glu Lys Tyr 3065	His Arg Leu Leu Ile 3070	Pro Ser Thr Arg Met 3075	
tct gat gct ggg aag	tac aca gtg gtg gca	gga ggc aac gtg tca	9402
Ser Asp Ala Gly 3080	Tyr Thr Val Val Ala 3085	Gly Gly Asn Val Ser 3090	
act gca aaa ctc ttt	gta gaa ggc aga gat	gtt cgc atc cga agt	9447
Thr Ala Lys Leu Phe	Val Glu Gly Arg Asp	Val Arg Ile Arg Ser	

	3095	3100	3105	
	att aaa aag gag gtt Ile Lys Lys Glu Val 3110	cag gtc att gag aaa Gln Val Ile Glu Lys 3115	cag cgt gct gtt gtt Gln Arg Ala Val Val 3120	9492
	gaa ttt gag gtc aat Glu Phe Glu Val Asn 3125	gaa gac gat gtt gat Glu Asp Asp Val Asp 3130	gcc cac tgg tat aaa Ala His Trp Tyr Lys 3135	9537
	gat ggc att gaa atc Asp Gly Ile Glu Ile 3140	aat ttc caa gtt caa Asn Phe Gln Val Gln 3145	gaa cga cac aaa tat Glu Arg His Lys Tyr 3150	9582
	gta gtg gaa aga aga Val Val Glu Arg Arg 3155	atc cac cga atg ttt Ile His Arg Met Phe 3160	atc tct gag acc aga Ile Ser Glu Thr Arg 3165	9627
	cag agc gat gca gga Gln Ser Asp Ala Gly 3170	gaa tac acc ttt gtg Glu Tyr Thr Phe Val 3175	gca gga agg aac agg Ala Gly Arg Asn Arg 3180	9672
	agt tct gtc act ctc Ser Ser Val Thr Leu 3185	tat gtc aat gct cct Tyr Val Asn Ala Pro 3190	gaa ccg ccc caa gtt Glu Pro Pro Gln Val 3195	9717
	ctg cag gag ctc cag Leu Gln Glu Leu Gln 3200	cct gtc act gtg cag Pro Val Thr Val Gln 3205	tct ggc aag cct gcc Ser Gly Lys Pro Ala 3210	9762
	cgc ttc tgt gcc atg Arg Phe Cys Ala Met 3215	ata tcc gga aga cca Ile Ser Gly Arg Pro 3220	cag ccc aaa att tcc Gln Pro Lys Ile Ser 3225	9807
	tgg tac aag gaa gag Trp Tyr Lys Glu Glu 3230	cag ctg ctt tcc act Gln Leu Leu Ser Thr 3235	ggc ttc aag tgc aaa Gly Phe Lys Cys Lys 3240	9852
	ttt ctt cat gat ggg Phe Leu His Asp Gly 3245	caa gag tac acg ctt Gln Glu Tyr Thr Leu 3250	ttg cta att gaa gcc Leu Leu Ile Glu Ala 3255	9897
	ttc cca gag gat gcg Phe Pro Glu Asp Ala 3260	gca gtc tat acc tgt Ala Val Tyr Thr Cys 3265	gaa gcc aag aat gac Glu Ala Lys Asn Asp 3270	9942
	tat ggt gtt gcc aca Tyr Gly Val Ala Thr 3275	aca tca gct tca ctc Thr Ser Ala Ser Leu 3280	tca gtg gaa gtt cca Ser Val Glu Val Pro 3285	9987
	gaa gtt gtg tct cct Glu Val Val Ser Pro 3290	gat cag gaa atg cct Asp Gln Glu Met Pro 3295	gtt tat cca cct gcc Val Tyr Pro Pro Ala 3300	10032
	atc atc acc ccg ctt Ile Ile Thr Pro Leu 3305	cag gac act gtc act Gln Asp Thr Val Thr 3310	tct gaa ggg cag cca Ser Glu Gly Gln Pro 3315	10077

gcc cgt ttt caa tgc	cgg gtt tct gga aca	gat cta aaa gtg tcg	10122
Ala Arg Phe Gln Cys	Arg Val Ser Gly Thr	Asp Leu Lys Val Ser	
3320	3325	3330	
tggtac agc aaa gac	aag aaa atc aag cca	tct cgg ttc ttt aga	10167
Trp Tyr Ser Lys Asp	Lys Lys Ile Lys Pro	Ser Arg Phe Phe Arg	
3335	3340	3345	
atg act caa ttt gaa	gac act tat caa ctg	gaa att gcc gaa gct	10212
Met Thr Gln Phe Glu	Asp Thr Tyr Gln Leu	Glu Ile Ala Glu Ala	
3350	3355	3360	
tat cca gaa gat gaa	gga act tac acg ttt	gtt gct aat aat gct	10257
Tyr Pro Glu Asp Glu	Gly Thr Tyr Thr Phe	Val Ala Asn Asn Ala	
3365	3370	3375	
gta ggc caa gta tca	agc aca gcc aac ctg	agt ctg gaa gct cct	10302
Val Gly Gln Val Ser	Ser Thr Ala Asn Leu	Ser Leu Glu Ala Pro	
3380	3385	3390	
gaa tca att ttg cat	gag agg att gaa caa	gag att gag atg gaa	10347
Glu Ser Ile Leu His	Glu Arg Ile Glu Gln	Glu Ile Glu Met Glu	
3395	3400	3405	
atg aaa gag ttt tct	agt tct ttt ctg tct	gcc gag gaa gaa gga	10392
Met Lys Glu Phe Ser	Ser Ser Phe Leu Ser	Ala Glu Glu Glu Gly	
3410	3415	3420	
ctt cat agc gcc gaa	ctt caa tta tct aaa	ata aat gaa aca ctt	10437
Leu His Ser Ala Glu	Leu Gln Leu Ser Lys	Ile Asn Glu Thr Leu	
3425	3430	3435	
gaa ctt ttg tct gaa	tct cca gtt tac cca	act aaa ttt gat tcc	10482
Glu Leu Leu Ser Glu	Ser Pro Val Tyr Pro	Thr Lys Phe Asp Ser	
3440	3445	3450	
gaa aag gaa ggc act	ggc cca att ttc atc	aaa gaa gtg tca aat	10527
Glu Lys Glu Gly Thr	Gly Pro Ile Phe Ile	Lys Glu Val Ser Asn	
3455	3460	3465	
gct gat ata agc atg	ggg gat gtg gct aca	ctg tct gta act gtc	10572
Ala Asp Ile Ser Met	Gly Asp Val Ala Thr	Leu Ser Val Thr Val	
3470	3475	3480	
att ggc atc ccc aaa	cct aaa att cag tgg	ttc ttt aat gga gtg	10617
Ile Gly Ile Pro Lys	Pro Lys Ile Gln Trp	Phe Phe Asn Gly Val	
3485	3490	3495	
cta tta acc cct tct	gct gac tac aaa ttt	gtt ttt gac ggt gat	10662
Leu Leu Thr Pro Ser	Ala Asp Tyr Lys Phe	Val Phe Asp Gly Asp	
3500	3505	3510	
gat cat agc ctg atc	att ctg ttc acc aaa	ttg gag gat gag gga	10707
Asp His Ser Leu Ile	Ile Leu Phe Thr Lys	Leu Glu Asp Glu Gly	
3515	3520	3525	
gag tat aca tgt atg	gcc agt aat gac tat	gga aag aca ata tgt	10752
Glu Tyr Thr Cys Met	Ala Ser Asn Asp Tyr	Gly Lys Thr Ile Cys	

	3530	3535	3540	
agt gcc tat cta aaa att aat tcc aaa gga gag ggt cac aaa gac				10797
Ser Ala Tyr Leu Lys Ile Asn Ser Lys Gly Glu Gly His Lys Asp	3545	3550	3555	
act gaa aca gaa tca gca gtg gca aaa tct ctg gaa aag ctg gga				10842
Thr Glu Thr Glu Ser Ala Val Ala Lys Ser Leu Glu Lys Leu Gly	3560	3565	3570	
ggt cct tgt cct cct cac ttc ctt aag gag tta aaa cca att cgc				10887
Gly Pro Cys Pro Pro His Phe Leu Lys Glu Leu Lys Pro Ile Arg	3575	3580	3585	
tgt gct caa ggg ctt cct gcc atc ttt gag tac aca gtg gtt gga				10932
Cys Ala Gln Gly Leu Pro Ala Ile Phe Glu Tyr Thr Val Val Gly	3590	3595	3600	
gag cct gcc cct act gtt aca tgg ttc aaa gaa aac aag cag ctt				10977
Glu Pro Ala Pro Thr Val Thr Trp Phe Lys Glu Asn Lys Gln Leu	3605	3610	3615	
tgc acc agt gtt tat tac act atc att cat aac cct aat ggc tct				11022
Cys Thr Ser Val Tyr Tyr Thr Ile Ile His Asn Pro Asn Gly Ser	3620	3625	3630	
gga act ttc att gtc aat gac cct cag agg gaa gac agt ggc ctc				11067
Gly Thr Phe Ile Val Asn Asp Pro Gln Arg Glu Asp Ser Gly Leu	3635	3640	3645	
tat atc tgt aaa gca gag aat atg ttg ggt gag tcc acc tgt gca				11112
Tyr Ile Cys Lys Ala Glu Asn Met Leu Gly Glu Ser Thr Cys Ala	3650	3655	3660	
gca gag ctg ctt gtg ctt ctg gaa gac aca gac atg act gat acc				11157
Ala Glu Leu Leu Val Leu Leu Glu Asp Thr Asp Met Thr Asp Thr	3665	3670	3675	
ccc tgc aaa gca aag tcc aca cca gag gct cct gag gat ttt cca				11202
Pro Cys Lys Ala Lys Ser Thr Pro Glu Ala Pro Glu Asp Phe Pro	3680	3685	3690	
cag aca ccc tta aag ggt ccc gca gtt gaa gca ctt gac tcg gag				11247
Gln Thr Pro Leu Lys Gly Pro Ala Val Glu Ala Leu Asp Ser Glu	3695	3700	3705	
cag gaa att gca acg ttt gta aaa gac acc att ttg aaa gct gct				11292
Gln Glu Ile Ala Thr Phe Val Lys Asp Thr Ile Leu Lys Ala Ala	3710	3715	3720	
tta att aca gaa gaa aac cag caa cta tct tat gag cat att gct				11337
Leu Ile Thr Glu Glu Asn Gln Gln Leu Ser Tyr Glu His Ile Ala	3725	3730	3735	
aaa gcc aat gaa ttg agc agt cag ctt cct ttg gga gct cag gaa				11382
Lys Ala Asn Glu Leu Ser Ser Gln Leu Pro Leu Gly Ala Gln Glu	3740	3745	3750	

ttg caa tcc att ttg gag caa gac aag ctc act cct gaa agc acc	11427
Leu Gln Ser Ile Leu Glu Gln Asp Lys Leu Thr Pro Glu Ser Thr	
3755 3760 3765	
agg gaa ttt ctt tgc atc aat ggc agt att cac ttt cag cct ctc	11472
Arg Glu Phe Leu Cys Ile Asn Gly Ser Ile His Phe Gln Pro Leu	
3770 3775 3780	
aag gaa cca tct ccc aac cta cag ctg cag att gta cag tcc cag	11517
Lys Glu Pro Ser Pro Asn Leu Gln Leu Gln Ile Val Gln Ser Gln	
3785 3790 3795	
aaa acc ttc tcc aaa gaa ggt att cta atg cct gaa gag cct gag	11562
Lys Thr Phe Ser Lys Glu Gly Ile Leu Met Pro Glu Glu Pro Glu	
3800 3805 3810	
aca cag gca gtt cta tca gat acc gag aaa atc ttc cca agt gcc	11607
Thr Gln Ala Val Leu Ser Asp Thr Glu Lys Ile Phe Pro Ser Ala	
3815 3820 3825	
atg tcc ata gaa caa att aat tca tta aca gtt gag cct ctg aaa	11652
Met Ser Ile Glu Gln Ile Asn Ser Leu Thr Val Glu Pro Leu Lys	
3830 3835 3840	
act tta tta gct gaa cct gaa ggg aat tat cca cag tct tca ata	11697
Thr Leu Leu Ala Glu Pro Glu Gly Asn Tyr Pro Gln Ser Ser Ile	
3845 3850 3855	
gaa cct cca atg cat tct tat cta acc tct gtg gct gag gaa gta	11742
Glu Pro Pro Met His Ser Tyr Leu Thr Ser Val Ala Glu Glu Val	
3860 3865 3870	
ctt tca cta aaa gaa aag aca gta tct gac acc aac aga gag caa	11787
Leu Ser Leu Lys Glu Lys Thr Val Ser Asp Thr Asn Arg Glu Gln	
3875 3880 3885	
aga gtg act ctt caa aag caa gag gca caa agt gcg ctc atc ttg	11832
Arg Val Thr Leu Gln Lys Gln Glu Ala Gln Ser Ala Leu Ile Leu	
3890 3895 3900	
agt cag agc tta gct gag gga cac gtg gag agt ctc cag agt cct	11877
Ser Gln Ser Leu Ala Glu Gly His Val Glu Ser Leu Gln Ser Pro	
3905 3910 3915	
gat gtc atg atc tct cag gta aac tat gag ccc cta gtc cct tca	11922
Asp Val Met Ile Ser Gln Val Asn Tyr Glu Pro Leu Val Pro Ser	
3920 3925 3930	
gaa cac tca tgc aca gaa gga ggt aaa att ttg ata gaa agt gca	11967
Glu His Ser Cys Thr Glu Gly Gly Lys Ile Leu Ile Glu Ser Ala	
3935 3940 3945	
aat cca ctg gaa aat gca ggg caa gat tct gcg gtc aga att gag	12012
Asn Pro Leu Glu Asn Ala Gly Gln Asp Ser Ala Val Arg Ile Glu	
3950 3955 3960	
gaa ggc aag tcc tta aga ttt cca cta gca ctt gaa gaa aag cag	12057
Glu Gly Lys Ser Leu Arg Phe Pro Leu Ala Leu Glu Glu Lys Gln	

3965										3970					3975					
gta	ctg	ctc	aaa	gaa	gag	cat	tct	gac	aac	gtg	gtg	atg	ccc	cca		12102				
Val	Leu	Leu	Lys	Glu	Glu	His	Ser	Asp	Asn	Val	Val	Met	Pro	Pro						
				3980					3985					3990						
gac	caa	atc	att	gag	tct	aaa	aga	gag	ccc	gtg	gca	ata	aag	aaa		12147				
Asp	Gln	Ile	Ile	Glu	Ser	Lys	Arg	Glu	Pro	Val	Ala	Ile	Lys	Lys						
				3995					4000					4005						
gtg	cag	gag	gta	cag	gga	agg	gac	ctt	ctt	tct	aag	gaa	agc	ttg		12192				
Val	Gln	Glu	Val	Gln	Gly	Arg	Asp	Leu	Leu	Ser	Lys	Glu	Ser	Leu						
				4010					4015					4020						
ctt	tct	ggt	att	cca	gaa	gag	cag	aga	tta	aac	ctg	aaa	att	caa		12237				
Leu	Ser	Gly	Ile	Pro	Glu	Glu	Gln	Arg	Leu	Asn	Leu	Lys	Ile	Gln						
				4025					4030					4035						
atc	tgc	cgg	gct	ttg	caa	gca	gcc	gtg	gcc	agc	gag	cag	cca	ggt		12282				
Ile	Cys	Arg	Ala	Leu	Gln	Ala	Ala	Val	Ala	Ser	Glu	Gln	Pro	Gly						
				4040					4045					4050						
ctt	ttc	tct	gag	tgg	cta	aga	aat	att	gaa	aag	gtg	gag	gtc	gag		12327				
Leu	Phe	Ser	Glu	Trp	Leu	Arg	Asn	Ile	Glu	Lys	Val	Glu	Val	Glu						
				4055					4060					4065						
gct	gta	aac	atc	acc	caa	gag	ccc	aga	cac	atc	atg	tgc	atg	tac		12372				
Ala	Val	Asn	Ile	Thr	Gln	Glu	Pro	Arg	His	Ile	Met	Cys	Met	Tyr						
				4070					4075					4080						
ctt	gtt	act	tgc	gca	aag	tct	gta	aca	gaa	gaa	gta	acc	atc	att		12417				
Leu	Val	Thr	Ser	Ala	Lys	Ser	Val	Thr	Glu	Glu	Val	Thr	Ile	Ile						
				4085					4090					4095						
att	gaa	gat	gtt	gat	cct	caa	atg	gct	aac	ctg	aaa	atg	gaa	ctt		12462				
Ile	Glu	Asp	Val	Asp	Pro	Gln	Met	Ala	Asn	Leu	Lys	Met	Glu	Leu						
				4100					4105					4110						
agg	gat	gct	ttg	tgt	gct	att	ata	tat	gag	gaa	ata	gac	atc	cta		12507				
Arg	Asp	Ala	Leu	Cys	Ala	Ile	Ile	Tyr	Glu	Glu	Ile	Asp	Ile	Leu						
				4115					4120					4125						
aca	gct	gag	ggt	cct	aga	att	cag	caa	gga	gcc	aaa	aca	agt	ttg		12552				
Thr	Ala	Glu	Gly	Pro	Arg	Ile	Gln	Gln	Gly	Ala	Lys	Thr	Ser	Leu						
				4130					4135					4140						
caa	gaa	gaa	atg	gat	tct	ttt	tca	ggt	tca	cag	aag	gtt	gaa	ccc		12597				
Gln	Glu	Glu	Met	Asp	Ser	Phe	Ser	Gly	Ser	Gln	Lys	Val	Glu	Pro						
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att	act	gaa	cca	gaa	gtt	gaa	tct	aaa	tat	ctg	atc	tca	act	gaa		12642				
Ile	Thr	Glu	Pro	Glu	Val	Glu	Ser	Lys	Tyr	Leu	Ile	Ser	Thr	Glu						
				4160					4165					4170						
gag	gtc	agt	tat	ttt	aac	gtg	caa	agt	agg	gtt	aaa	tat	ttg	gat		12687				
Glu	Val	Ser	Tyr	Phe	Asn	Val	Gln	Ser	Arg	Val	Lys	Tyr	Leu	Asp						
				4175					4180					4185						

gcc aca cct gtc act	aaa ggg gtt gct tca	gct gtt gtc tct gac	12732
Ala Thr Pro Val Thr	Lys Gly Val Ala Ser	Ala Val Val Ser Asp	
4190	4195	4200	
gaa aaa caa gat gag	agt ctg aaa cca tca	gag gaa aaa gag gag	12777
Glu Lys Gln Asp Glu	Ser Leu Lys Pro Ser	Glu Glu Lys Glu Glu	
4205	4210	4215	
tct tcc tct gaa agt	ggg act gag gag gtt	gct aca gta aag ata	12822
Ser Ser Ser Glu Ser	Gly Thr Glu Glu Val	Ala Thr Val Lys Ile	
4220	4225	4230	
cag gaa gct gag ggt	ggc tta atc aaa gag	gat ggc ccc atg ata	12867
Gln Glu Ala Glu Gly	Gly Leu Ile Lys Glu	Asp Gly Pro Met Ile	
4235	4240	4245	
cat aca cct tta gtg	gac act gtt tct gag	gaa ggt gat att gta	12912
His Thr Pro Leu Val	Asp Thr Val Ser Glu	Glu Gly Asp Ile Val	
4250	4255	4260	
cac ctc aca aca tcc	ata aca aat gct aaa	gag gtg aat tgg tat	12957
His Leu Thr Thr Ser	Ile Thr Asn Ala Lys	Glu Val Asn Trp Tyr	
4265	4270	4275	
ttt gag aat aaa ctg	gtg cct tca gat gaa	aag ttc aag tgt tta	13002
Phe Glu Asn Lys Leu	Val Pro Ser Asp Glu	Lys Phe Lys Cys Leu	
4280	4285	4290	
caa gat caa aat aca	tat acg cta gtc atc	gac aaa gta aat acc	13047
Gln Asp Gln Asn Thr	Tyr Thr Leu Val Ile	Asp Lys Val Asn Thr	
4295	4300	4305	
gaa gac cat caa gga	gag tat gtc tgt gag	gcc ttg aat gac agc	13092
Glu Asp His Gln Gly	Glu Tyr Val Cys Glu	Ala Leu Asn Asp Ser	
4310	4315	4320	
gga aaa aca gca act	tca gcc aaa ctc act	gta gta aaa aga gct	13137
Gly Lys Thr Ala Thr	Ser Ala Lys Leu Thr	Val Val Lys Arg Ala	
4325	4330	4335	
gcc cca gtg atc aag	agg aaa atc gaa ccc	ctg gaa gta gca ctg	13182
Ala Pro Val Ile Lys	Arg Lys Ile Glu Pro	Leu Glu Val Ala Leu	
4340	4345	4350	
ggc cac cta gcc aaa	ttc acc tgt gag atc	caa agt gct ccc aat	13227
Gly His Leu Ala Lys	Phe Thr Cys Glu Ile	Gln Ser Ala Pro Asn	
4355	4360	4365	
gtc cgg ttc cag tgg	ttt aaa gct ggc cga	gaa att tat gag agt	13272
Val Arg Phe Gln Trp	Phe Lys Ala Gly Arg	Glu Ile Tyr Glu Ser	
4370	4375	4380	
gac aag tgt tct att	cga tct tca aag tat	atc tcc agc ctt gaa	13317
Asp Lys Cys Ser Ile	Arg Ser Ser Lys Tyr	Ile Ser Ser Leu Glu	
4385	4390	4395	
atc ctg aga acc cag	gtg gtt gac tgc ggc	gag tat aca tgc aaa	13362
Ile Leu Arg Thr Gln	Val Val Asp Cys Gly	Glu Tyr Thr Cys Lys	

	4400	4405	4410	
gct tcc aat gag tat ggc agt gtc agc tgt aca gcc aca cta act				13407
Ala Ser Asn Glu Tyr Gly Ser Val Ser Cys Thr Ala Thr Leu Thr				
	4415	4420	4425	
gtg aca gtg cct gga ggt gaa aag aaa gtt cgc aaa tta ctt ccg				13452
Val Thr Val Pro Gly Gly Glu Lys Lys Val Arg Lys Leu Leu Pro				
	4430	4435	4440	
gaa cgt aaa cct gaa cca aag gaa gaa gtt gtt ctg aaa agc gtt				13497
Glu Arg Lys Pro Glu Pro Lys Glu Glu Val Val Leu Lys Ser Val				
	4445	4450	4455	
cta aga aaa aga cct gaa gaa gaa gaa cct aaa gta gaa cct aaa				13542
Leu Arg Lys Arg Pro Glu Glu Glu Glu Pro Lys Val Glu Pro Lys				
	4460	4465	4470	
aaa cta gaa aaa gtt aaa aaa cct gca gta cca gaa cca cca cct				13587
Lys Leu Glu Lys Val Lys Lys Pro Ala Val Pro Glu Pro Pro Pro				
	4475	4480	4485	
cca aaa cct gtt gaa gag gtt gaa gta cct act gtt aca aaa agg				13632
Pro Lys Pro Val Glu Glu Val Glu Val Pro Thr Val Thr Lys Arg				
	4490	4495	4500	
gaa agg aag att cct gaa cca aca aaa gtg cct gaa atc aag cca				13677
Glu Arg Lys Ile Pro Glu Pro Thr Lys Val Pro Glu Ile Lys Pro				
	4505	4510	4515	
gca ata cct ctc cct gca cct gaa ccg aaa cca aag ccc gaa gca				13722
Ala Ile Pro Leu Pro Ala Pro Glu Pro Lys Pro Lys Pro Glu Ala				
	4520	4525	4530	
gaa gtg aaa aca atc aaa cca cct cct gtg gaa cct gaa cca acc				13767
Glu Val Lys Thr Ile Lys Pro Pro Pro Val Glu Pro Glu Pro Thr				
	4535	4540	4545	
ccc atc gct gcc cca gta aca gtg cca gtg gtt gga aag aaa gca				13812
Pro Ile Ala Ala Pro Val Thr Val Pro Val Val Gly Lys Lys Ala				
	4550	4555	4560	
gaa gcc aaa gca cct aag gaa gag gct gcc aag cca aaa ggt cct				13857
Glu Ala Lys Ala Pro Lys Glu Glu Ala Ala Lys Pro Lys Gly Pro				
	4565	4570	4575	
atc aaa ggt gta ccc aaa aag act cct tca cca ata gaa gcc gaa				13902
Ile Lys Gly Val Pro Lys Lys Thr Pro Ser Pro Ile Glu Ala Glu				
	4580	4585	4590	
agg aga aag tta agg cca gga agt ggt gga gag aaa cct cct gat				13947
Arg Arg Lys Leu Arg Pro Gly Ser Gly Gly Glu Lys Pro Pro Asp				
	4595	4600	4605	
gaa gcc ccg ttc acc tac cag cta aag gct gtg cca ctg aag ttt				13992
Glu Ala Pro Phe Thr Tyr Gln Leu Lys Ala Val Pro Leu Lys Phe				
	4610	4615	4620	

gtg aaa gaa atc aaa gac atc atc ttg aca gaa tca gag ttc gtt	14037
Val Lys Glu Ile Lys Asp Ile Ile Leu Thr Glu Ser Glu Phe Val	
4625 4630 4635	
ggc tct tca gca atc ttt gaa tgt ttg gtc tcc cct tcc act gca	14082
Gly Ser Ser Ala Ile Phe Glu Cys Leu Val Ser Pro Ser Thr Ala	
4640 4645 4650	
att aca acc tgg atg aaa gac ggt agc aat atc cgt gag agt ccc	14127
Ile Thr Thr Trp Met Lys Asp Gly Ser Asn Ile Arg Glu Ser Pro	
4655 4660 4665	
aag cac agg ttt att gca gat ggt aaa gac aga aag ctg cac atc	14172
Lys His Arg Phe Ile Ala Asp Gly Lys Asp Arg Lys Leu His Ile	
4670 4675 4680	
att gat gtt caa ctt tcc gat gct ggt gaa tac acc tgt gtt tta	14217
Ile Asp Val Gln Leu Ser Asp Ala Gly Glu Tyr Thr Cys Val Leu	
4685 4690 4695	
cgt ttg gga aac aaa gaa aag acc tcc acg gct aaa ctt gtt gta	14262
Arg Leu Gly Asn Lys Glu Lys Thr Ser Thr Ala Lys Leu Val Val	
4700 4705 4710	
gaa gaa ctt cct gtg cgt ttt gta aaa aca ctg gaa gag gaa gtc	14307
Glu Glu Leu Pro Val Arg Phe Val Lys Thr Leu Glu Glu Glu Val	
4715 4720 4725	
aca gtg gtc aaa gga cag cca ttg tac ttg agc tgc gag tta aac	14352
Thr Val Val Lys Gly Gln Pro Leu Tyr Leu Ser Cys Glu Leu Asn	
4730 4735 4740	
aaa gag cgt gac gtg gtc tgg agg aag gat ggc aag att gtg gtg	14397
Lys Glu Arg Asp Val Val Trp Arg Lys Asp Gly Lys Ile Val Val	
4745 4750 4755	
gag aaa cct ggc cga att gtg cca ggc gtc att ggc ttg atg cgg	14442
Glu Lys Pro Gly Arg Ile Val Pro Gly Val Ile Gly Leu Met Arg	
4760 4765 4770	
gct ctg acc atc aac gat gca gat gac aca gat gct gga aca tac	14487
Ala Leu Thr Ile Asn Asp Ala Asp Asp Thr Asp Ala Gly Thr Tyr	
4775 4780 4785	
aca gtt act gtg gaa aac gcc aac aac ctg gag tgt tca tct tgc	14532
Thr Val Thr Val Glu Asn Ala Asn Asn Leu Glu Cys Ser Ser Cys	
4790 4795 4800	
gta aaa gta gta gaa gtc att aga gat tgg ctg gtg aaa cct ata	14577
Val Lys Val Val Glu Val Ile Arg Asp Trp Leu Val Lys Pro Ile	
4805 4810 4815	
cga gac cag cat gtg aaa ccc aag ggg aca gct att ttt gcc tgt	14622
Arg Asp Gln His Val Lys Pro Lys Gly Thr Ala Ile Phe Ala Cys	
4820 4825 4830	
gat ata gca aaa gat act cca aac att aag tgg ttc aaa gga tat	14667
Asp Ile Ala Lys Asp Thr Pro Asn Ile Lys Trp Phe Lys Gly Tyr	

4835										4840										4845										
gat	gaa	atc	cct	gcg	gaa	cca	aat	gat	aag	act	gaa	ata	ctg	aga		14712														
Asp	Glu	Ile	Pro	Ala	Glu	Pro	Asn	Asp	Lys	Thr	Glu	Ile	Leu	Arg																
				4850					4855					4860																
gat	gga	aat	cat	ctg	tac	ctc	aaa	att	aag	aat	gct	atg	cca	gaa		14757														
Asp	Gly	Asn	His	Leu	Tyr	Leu	Lys	Ile	Lys	Asn	Ala	Met	Pro	Glu																
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gat	att	gct	gag	tat	gca	gtg	gaa	att	gaa	gga	aaa	aga	tac	cct		14802														
Asp	Ile	Ala	Glu	Tyr	Ala	Val	Glu	Ile	Glu	Gly	Lys	Arg	Tyr	Pro																
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gca	aag	ctg	aca	ctt	gga	gag	cgt	gaa	gtt	gaa	ctg	ctt	aaa	cca		14847														
Ala	Lys	Leu	Thr	Leu	Gly	Glu	Arg	Glu	Val	Glu	Leu	Leu	Lys	Pro																
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Ile	Glu	Asp	Val	Thr	Ile	Tyr	Glu	Lys	Glu	Ser	Ala	Ser	Phe	Asp																
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Ala	Glu	Ile	Ser	Glu	Ala	Asp	Ile	Pro	Gly	Gln	Trp	Lys	Leu	Lys																
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gga	gaa	ctt	cta	agg	ccc	tca	cct	act	tgt	gaa	atc	aaa	gca	gaa		14982														
Gly	Glu	Leu	Leu	Arg	Pro	Ser	Pro	Thr	Cys	Glu	Ile	Lys	Ala	Glu																
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ggt	gga	aaa	cgc	ttc	tta	act	ttg	cac	aaa	gtc	aaa	ctg	gac	caa		15027														
Gly	Gly	Lys	Arg	Phe	Leu	Thr	Leu	His	Lys	Val	Lys	Leu	Asp	Gln																
				4955					4960					4965																
gct	ggt	gaa	gtc	ctc	tac	cag	gcc	ctt	aat	gca	att	aca	act	gcc		15072														
Ala	Gly	Glu	Val	Leu	Tyr	Gln	Ala	Leu	Asn	Ala	Ile	Thr	Thr	Ala																
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att	ttg	aca	gta	aaa	gaa	atc	gaa	ctt	gac	ttt	gct	gtg	ccc	ctg		15117														
Ile	Leu	Thr	Val	Lys	Glu	Ile	Glu	Leu	Asp	Phe	Ala	Val	Pro	Leu																
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aag	gat	gtc	act	gtt	cca	gaa	agg	cga	cag	gct	cga	ttc	gaa	tgt		15162														
Lys	Asp	Val	Thr	Val	Pro	Glu	Arg	Arg	Gln	Ala	Arg	Phe	Glu	Cys																
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Val	Leu	Thr	Arg	Glu	Ala	Asn	Val	Ile	Trp	Ser	Lys	Gly	Pro	Asp																
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ata	att	aag	tca	tct	gac	aaa	ttt	gat	atc	atc	gct	gat	gga	aag		15252														
Ile	Ile	Lys	Ser	Ser	Asp	Lys	Phe	Asp	Ile	Ile	Ala	Asp	Gly	Lys																
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aaa	cat	att	ctt	gtt	att	aat	gat	tct	caa	ttt	gat	gat	gaa	ggg		15297														
Lys	His	Ile	Leu	Val	Ile	Asn	Asp	Ser	Gln	Phe	Asp	Asp	Glu	Gly																
				5045					5050					5055																

gtc tat act gct gag	gtg gag ggc aag aag	acc tca gct cgg ttg	15342
Val Tyr Thr Ala Glu	Val Glu Gly Lys Lys	Thr Ser Ala Arg Leu	
5060	5065	5070	
ttt gtc aca ggt ata	aga ctg aaa ttc atg	tca cct ctt gaa gat	15387
Phe Val Thr Gly Ile	Arg Leu Lys Phe Met	Ser Pro Leu Glu Asp	
5075	5080	5085	
caa aca gta aaa gaa	ggt gaa aca gca act	ttt gtt tgt gaa ctt	15432
Gln Thr Val Lys Glu	Gly Glu Thr Ala Thr	Phe Val Cys Glu Leu	
5090	5095	5100	
tct cat gaa aaa atg	cat gta gtc tgg ttc	aaa aat gat gcc aaa	15477
Ser His Glu Lys Met	His Val Val Trp Phe	Lys Asn Asp Ala Lys	
5105	5110	5115	
ctc cat aca agc aga	aca gta ctc atc tct	tct gag ggc aag act	15522
Leu His Thr Ser Arg	Thr Val Leu Ile Ser	Ser Glu Gly Lys Thr	
5120	5125	5130	
cac aaa ttg gaa atg	aaa gaa gtg aca ttg	gat gat ata tct cag	15567
His Lys Leu Glu Met	Lys Glu Val Thr Leu	Asp Asp Ile Ser Gln	
5135	5140	5145	
ata aaa gct caa gtc	aag gag ctg agc tcc	aca gca cag ctg aag	15612
Ile Lys Ala Gln Val	Lys Glu Leu Ser Ser	Thr Ala Gln Leu Lys	
5150	5155	5160	
gtc tta gag gcc gat	ccc tac ttc act gtg	aaa tta cat gac aaa	15657
Val Leu Glu Ala Asp	Pro Tyr Phe Thr Val	Lys Leu His Asp Lys	
5165	5170	5175	
act gca gtg gag aag	gat gag att act ttg	aag tgt gaa gtg agc	15702
Thr Ala Val Glu Lys	Asp Glu Ile Thr Leu	Lys Cys Glu Val Ser	
5180	5185	5190	
aaa gat gta cca gtg	aaa tgg ttc aaa gat	ggt gaa gag att gtc	15747
Lys Asp Val Pro Val	Lys Trp Phe Lys Asp	Gly Glu Glu Ile Val	
5195	5200	5205	
cct tca ccc aaa tat	tct atc aag gca gat	ggc ctg cgc cgc atc	15792
Pro Ser Pro Lys Tyr	Ser Ile Lys Ala Asp	Gly Leu Arg Arg Ile	
5210	5215	5220	
tta aaa atc aaa aag	gcg gac ctt aaa gat	aaa ggc gaa tat gtg	15837
Leu Lys Ile Lys Lys	Ala Asp Leu Lys Asp	Lys Gly Glu Tyr Val	
5225	5230	5235	
tgt gac tgt ggc aca	gac aag acc aag gca	aat gtt act gtt gag	15882
Cys Asp Cys Gly Thr	Asp Lys Thr Lys Ala	Asn Val Thr Val Glu	
5240	5245	5250	
gct cga cta ata gaa	gtg gaa aag cct ctg	tac gga gta gag gtg	15927
Ala Arg Leu Ile Glu	Val Glu Lys Pro Leu	Tyr Gly Val Glu Val	
5255	5260	5265	
ttt gtt ggt gaa aca	gcc cac ttt gaa att	gaa ctt tct gaa cct	15972
Phe Val Gly Glu Thr	Ala His Phe Glu Ile	Glu Leu Ser Glu Pro	

5270										5275					5280						
gat gtt cac ggc cag	tg	g	a	a	g	g	a	a	a	g	a	c	c	t	t	a	a	g	c	t	16017
Asp Val His Gly Gln	Trp	Lys	Leu	Lys	Gly	Gln	Pro	Leu	Thr	Ala											
	5285				5290					5295											
tcc cct gac tgt gaa	atc	att	gag	gat	gga	aag	aag	cat	att	ctg										16062	
Ser Pro Asp Cys Glu	Ile	Ile	Glu	Asp	Gly	Lys	Lys	His	Ile	Leu											
	5300				5305					5310											
atc ctt cat aac tgt	cag	ctg	ggt	atg	aca	gga	gag	gtt	tcc	ttc										16107	
Ile Leu His Asn Cys	Gln	Leu	Gly	Met	Thr	Gly	Glu	Val	Ser	Phe											
	5315				5320					5325											
cag gct gct aat gcc	aaa	tct	gca	gcc	aat	ctg	aaa	gtg	aaa	gaa										16152	
Gln Ala Ala Asn Ala	Lys	Ser	Ala	Ala	Asn	Leu	Lys	Val	Lys	Glu											
	5330				5335					5340											
ttg cct ctt atc ttc	atc	aca	cct	ctc	agt	gat	gtt	aaa	gtc	ttc										16197	
Leu Pro Leu Ile Phe	Ile	Thr	Pro	Leu	Ser	Asp	Val	Lys	Val	Phe											
	5345				5350					5355											
gag aaa gat gag gct	aag	ttt	gag	tgt	gaa	gta	tcc	agg	gag	ccc										16242	
Glu Lys Asp Glu Ala	Lys	Phe	Glu	Cys	Glu	Val	Ser	Arg	Glu	Pro											
	5360				5365					5370											
aaa aca ttc cgt tgg	cta	aaa	gga	acc	cag	gaa	atc	aca	ggt	gat										16287	
Lys Thr Phe Arg Trp	Leu	Lys	Gly	Thr	Gln	Glu	Ile	Thr	Gly	Asp											
	5375				5380					5385											
gac aga ttt gag ctt	ata	aag	gat	ggc	act	aag	cat	tca	atg	gtg										16332	
Asp Arg Phe Glu Leu	Ile	Lys	Asp	Gly	Thr	Lys	His	Ser	Met	Val											
	5390				5395					5400											
atc aag tca gct gct	ttt	gaa	gat	gaa	gca	aaa	tac	atg	ttt	gaa										16377	
Ile Lys Ser Ala Ala	Phe	Glu	Asp	Glu	Ala	Lys	Tyr	Met	Phe	Glu											
	5405				5410					5415											
gct gaa gat aag cac	aca	agt	ggc	aaa	ctg	atc	att	gaa	gga	atc										16422	
Ala Glu Asp Lys His	Thr	Ser	Gly	Lys	Leu	Ile	Ile	Glu	Gly	Ile											
	5420				5425					5430											
cgg ctc aaa ttc ctc	acc	cct	ctc	aaa	gat	gta	act	gcc	aaa	gag										16467	
Arg Leu Lys Phe Leu	Thr	Pro	Leu	Lys	Asp	Val	Thr	Ala	Lys	Glu											
	5435				5440					5445											
aag gaa agt gct gta	ttt	act	gtg	gag	tta	tct	cat	gat	aac	atc										16512	
Lys Glu Ser Ala Val	Phe	Thr	Val	Glu	Leu	Ser	His	Asp	Asn	Ile											
	5450				5455					5460											
cga gtt aaa tgg ttc	aag	aat	gac	cag	cgc	cta	cac	acc	acc	agg										16557	
Arg Val Lys Trp Phe	Lys	Asn	Asp	Gln	Arg	Leu	His	Thr	Thr	Arg											
	5465				5470					5475											
tcg gtc tca atg caa	gac	gaa	ggg	aaa	act	cat	tcg	atc	aca	ttc										16602	
Ser Val Ser Met Gln	Asp	Glu	Gly	Lys	Thr	His	Ser	Ile	Thr	Phe											
	5480				5485					5490											

aaa gac ctg tct att gat gac acc tcc caa att aga gta gaa gct Lys Asp Leu Ser Ile Asp Asp Thr Ser Gln Ile Arg Val Glu Ala 5495 5500 5505	16647
atg ggg atg agt tca gaa gct aaa ctc act gtg ctt gag gga gac Met Gly Met Ser Ser Glu Ala Lys Leu Thr Val Leu Glu Gly Asp 5510 5515 5520	16692
cca tat ttt aca gga aaa ctt caa gat tat act ggt gta gag aaa Pro Tyr Phe Thr Gly Lys Leu Gln Asp Tyr Thr Gly Val Glu Lys 5525 5530 5535	16737
gat gaa gtt att cta cag tgt gaa att agc aaa gca gat gca cca Asp Glu Val Ile Leu Gln Cys Glu Ile Ser Lys Ala Asp Ala Pro 5540 5545 5550	16782
gtg aaa tgg ttt aag gat ggg aag gaa ata aag cca tcc aaa aat Val Lys Trp Phe Lys Asp Gly Lys Glu Ile Lys Pro Ser Lys Asn 5555 5560 5565	16827
gct gtt att aag aca gat ggc aag aaa cgc atg cta atc cta aag Ala Val Ile Lys Thr Asp Gly Lys Lys Arg Met Leu Ile Leu Lys 5570 5575 5580	16872
aaa gcc ttg aaa tca gat att gga cag tac acc tgt gac tgt ggg Lys Ala Leu Lys Ser Asp Ile Gly Gln Tyr Thr Cys Asp Cys Gly 5585 5590 5595	16917
aca gat aag acc tca gga aaa ctt gac att gag gat cgg gaa att Thr Asp Lys Thr Ser Gly Lys Leu Asp Ile Glu Asp Arg Glu Ile 5600 5605 5610	16962
aaa ctg gtg cga ccc ctg cac agt gtg gag gtg atg gag act gag Lys Leu Val Arg Pro Leu His Ser Val Glu Val Met Glu Thr Glu 5615 5620 5625	17007
aca gca cgc ttt gaa acc gaa atc tct gaa gat gat atc cac gcc Thr Ala Arg Phe Glu Thr Glu Ile Ser Glu Asp Asp Ile His Ala 5630 5635 5640	17052
aac tgg aaa ctc aag gga gag gcc cta ctc caa aca cct gat tgt Asn Trp Lys Leu Lys Gly Glu Ala Leu Leu Gln Thr Pro Asp Cys 5645 5650 5655	17097
gaa att aag gaa gaa ggc aaa ata cac tcc ctt gtt ttg cac aac Glu Ile Lys Glu Glu Gly Lys Ile His Ser Leu Val Leu His Asn 5660 5665 5670	17142
tgt cgc ctg gac cag acg ggt ggg gtg gat ttc caa gct gcc aat Cys Arg Leu Asp Gln Thr Gly Gly Val Asp Phe Gln Ala Ala Asn 5675 5680 5685	17187
gtt aaa tct agt gcc cac ctc cga gtt aag cca cga gta att ggt Val Lys Ser Ser Ala His Leu Arg Val Lys Pro Arg Val Ile Gly 5690 5695 5700	17232
ctt ctg agg cct tta aag gat gtc acc gtg act gca ggg gaa aca Leu Leu Arg Pro Leu Lys Asp Val Thr Val Thr Ala Gly Glu Thr	17277

5705					5710					5715					
gcc	acc	ttc	gac	tgc	gag	ctc	tcc	tac	gaa	gat	atc	cca	gtg	gaa	17322
Ala	Thr	Phe	Asp	Cys	Glu	Leu	Ser	Tyr	Glu	Asp	Ile	Pro	Val	Glu	
				5720					5725					5730	
tg	g	t	a	a	a	a	a	a	c	a	g	a	a	a	17367
Trp	Tyr	Leu	Lys	Gly	Lys	Lys	Leu	Glu	Pro	Ser	Asp	Lys	Val	Val	
				5735					5740					5745	
cca	cgt	tca	gaa	gga	aaa	gtt	cat	aca	ctt	act	ctg	agg	gat	gta	17412
Pro	Arg	Ser	Glu	Gly	Lys	Val	His	Thr	Leu	Thr	Leu	Arg	Asp	Val	
				5750					5755					5760	
aag	tta	gaa	gat	gct	ggg	gaa	gtc	caa	cta	aca	gca	aaa	gat	ttc	17457
Lys	Leu	Glu	Asp	Ala	Gly	Glu	Val	Gln	Leu	Thr	Ala	Lys	Asp	Phe	
				5765					5770					5775	
aaa	act	cac	gcc	aac	ctc	ttt	gtg	aaa	gaa	ccc	cca	gtt	gaa	ttc	17502
Lys	Thr	His	Ala	Asn	Leu	Phe	Val	Lys	Glu	Pro	Pro	Val	Glu	Phe	
				5780					5785					5790	
act	aag	cct	ctt	gag	gac	cag	acg	gtc	gaa	gag	gga	gcc	act	gca	17547
Thr	Lys	Pro	Leu	Glu	Asp	Gln	Thr	Val	Glu	Glu	Gly	Ala	Thr	Ala	
				5795					5800					5805	
gtg	ctg	gag	tgt	gaa	gtc	tcc	aga	gaa	aat	gct	aag	gtg	aaa	tg	17592
Val	Leu	Glu	Cys	Glu	Val	Ser	Arg	Glu	Asn	Ala	Lys	Val	Lys	Trp	
				5810					5815					5820	
ttc	aaa	aat	ggg	aca	gaa	atc	ctc	aaa	agc	aag	aag	tat	gaa	att	17637
Phe	Lys	Asn	Gly	Thr	Glu	Ile	Leu	Lys	Ser	Lys	Lys	Tyr	Glu	Ile	
				5825					5830					5835	
gtt	gct	gat	ggc	agg	gtc	aga	aaa	ctt	gtt	ata	cat	gac	tgt	acc	17682
Val	Ala	Asp	Gly	Arg	Val	Arg	Lys	Leu	Val	Ile	His	Asp	Cys	Thr	
				5840					5845					5850	
cca	gag	gat	att	aaa	aca	tac	act	tgt	gat	gct	aag	gat	ttt	aag	17727
Pro	Glu	Asp	Ile	Lys	Thr	Tyr	Thr	Cys	Asp	Ala	Lys	Asp	Phe	Lys	
				5855					5860					5865	
act	tcc	tgt	aac	ctg	aat	gtc	gtg	cct	cct	cat	gtg	gaa	ttc	tta	17772
Thr	Ser	Cys	Asn	Leu	Asn	Val	Val	Pro	Pro	His	Val	Glu	Phe	Leu	
				5870					5875					5880	
aga	cca	ctc	acc	gac	ctt	caa	gtt	aga	gaa	aaa	gaa	atg	gct	cga	17817
Arg	Pro	Leu	Thr	Asp	Leu	Gln	Val	Arg	Glu	Lys	Glu	Met	Ala	Arg	
				5885					5890					5895	
ttt	gag	tgt	gaa	ctt	tcc	cga	gaa	aat	gct	aag	gtt	aag	tg	ttt	17862
Phe	Glu	Cys	Glu	Leu	Ser	Arg	Glu	Asn	Ala	Lys	Val	Lys	Trp	Phe	
				5900					5905					5910	
aaa	gat	gg	g	g	att	aaa	aag	ggc	aaa	aaa	tat	gac	atc	ata	17907
Lys	Asp	Gly	Ala	Glu	Ile	Lys	Lys	Gly	Lys	Lys	Tyr	Asp	Ile	Ile	
				5915					5920					5925	

tcc aag gga gca gtg	cgc att ctt gtc atc	aac aaa tgt cta ctg	17952
Ser Lys Gly Ala Val	Arg Ile Leu Val Ile	Asn Lys Cys Leu Leu	
5930	5935	5940	
gat gat gaa gct gaa	tat tcc tgt gaa gta	agg aca gcg aga act	17997
Asp Asp Glu Ala Glu	Tyr Ser Cys Glu Val	Arg Thr Ala Arg Thr	
5945	5950	5955	
tct ggc atg ctg aca	gtt ctg gaa gaa gaa	gct gtc ttt acc aaa	18042
Ser Gly Met Leu Thr	Val Leu Glu Glu Glu	Ala Val Phe Thr Lys	
5960	5965	5970	
aat ctt gcc aac att	gaa gtt agt gaa aca	gac act ata aaa ctg	18087
Asn Leu Ala Asn Ile	Glu Val Ser Glu Thr	Asp Thr Ile Lys Leu	
5975	5980	5985	
gtt tgt gaa gtc tcc	aaa cct ggc gca gaa	gtg att tgg tat aaa	18132
Val Cys Glu Val Ser	Lys Pro Gly Ala Glu	Val Ile Trp Tyr Lys	
5990	5995	6000	
ggg gat gag gag atc	att gaa aca gga aga	tat gaa ata ctg act	18177
Gly Asp Glu Glu Ile	Ile Glu Thr Gly Arg	Tyr Glu Ile Leu Thr	
6005	6010	6015	
gaa gga cgg aag aga	atc ctg gtc att cag	aac gct cac ctt gag	18222
Glu Gly Arg Lys Arg	Ile Leu Val Ile Gln	Asn Ala His Leu Glu	
6020	6025	6030	
gat gct ggc aac tac	aac tgt cga ctc cca	agc tct cga acc gat	18267
Asp Ala Gly Asn Tyr	Asn Cys Arg Leu Pro	Ser Ser Arg Thr Asp	
6035	6040	6045	
ggc aaa gtc aaa gta	cat gaa ctg gct gct	gaa ttt atc tca aag	18312
Gly Lys Val Lys Val	His Glu Leu Ala Ala	Glu Phe Ile Ser Lys	
6050	6055	6060	
cct caa aac ctt gaa	ata ctt gaa gga gaa	aag gct gaa ttt gtc	18357
Pro Gln Asn Leu Glu	Ile Leu Glu Gly Glu	Lys Ala Glu Phe Val	
6065	6070	6075	
tgc tct ata tca aaa	gaa agc ttt cca gtc	cag tgg aag agg gat	18402
Cys Ser Ile Ser Lys	Glu Ser Phe Pro Val	Gln Trp Lys Arg Asp	
6080	6085	6090	
gat aag aca ctt gaa	tct gga gat aaa tat	gac gtt att gct gat	18447
Asp Lys Thr Leu Glu	Ser Gly Asp Lys Tyr	Asp Val Ile Ala Asp	
6095	6100	6105	
ggt aaa aag agg gtc	cta gtt gtg aaa gat	gcc aca tta caa gat	18492
Gly Lys Lys Arg Val	Leu Val Val Lys Asp	Ala Thr Leu Gln Asp	
6110	6115	6120	
atg ggc act tac gtt	gtc atg gta ggg gcc	gcc aga gca gca gct	18537
Met Gly Thr Tyr Val	Val Met Val Gly Ala	Ala Arg Ala Ala Ala	
6125	6130	6135	
cac ttg aca gtc att	gaa aaa ctc agg atc	gta gtt cct ctt aag	18582
His Leu Thr Val Ile	Glu Lys Leu Arg Ile	Val Val Pro Leu Lys	

6140					6145					6150					
gac	acc	cgg	gtg	aag	gaa	caa	cag	gaa	gtt	gtc	ttc	aac	tgt	gaa	18627
Asp	Thr	Arg	Val	Lys	Glu	Gln	Gln	Glu	Val	Val	Phe	Asn	Cys	Glu	
				6155					6160					6165	
gtc	aat	act	gaa	ggc	aaa	gcc	aaa	tgg	ttc	aga	aat	gaa	gaa	18672	
Val	Asn	Thr	Glu	Gly	Ala	Lys	Ala	Lys	Trp	Phe	Arg	Asn	Glu	Glu	
				6170					6175					6180	
gct	ata	ttt	gat	agt	tca	aaa	tac	atc	att	ctc	caa	aaa	gac	cta	18717
Ala	Ile	Phe	Asp	Ser	Ser	Lys	Tyr	Ile	Ile	Leu	Gln	Lys	Asp	Leu	
				6185					6190					6195	
gtc	tac	acc	ctc	aga	att	aga	gat	gca	cac	tta	gat	gac	caa	gcc	18762
Val	Tyr	Thr	Leu	Arg	Ile	Arg	Asp	Ala	His	Leu	Asp	Asp	Gln	Ala	
				6200					6205					6210	
aac	tat	aat	gtg	tct	ttg	acc	aat	cac	aga	ggc	gaa	aat	gtt	aaa	18807
Asn	Tyr	Asn	Val	Ser	Leu	Thr	Asn	His	Arg	Gly	Glu	Asn	Val	Lys	
				6215					6220					6225	
agt	gca	gcc	aat	cta	ata	gta	gaa	gag	gaa	gac	ctt	agg	att	gtt	18852
Ser	Ala	Ala	Asn	Leu	Ile	Val	Glu	Glu	Glu	Asp	Leu	Arg	Ile	Val	
				6230					6235					6240	
gag	cct	ctt	aaa	gat	att	gaa	aca	atg	gag	aag	aaa	tct	gtc	aca	18897
Glu	Pro	Leu	Lys	Asp	Ile	Glu	Thr	Met	Glu	Lys	Lys	Ser	Val	Thr	
				6245					6250					6255	
ttc	tgg	tgc	aag	gtg	aat	cgt	ctc	aat	gta	aca	ctg	aag	tgg	acc	18942
Phe	Trp	Cys	Lys	Val	Asn	Arg	Leu	Asn	Val	Thr	Leu	Lys	Trp	Thr	
				6260					6265					6270	
aaa	aat	ggc	gaa	gaa	gtg	cct	ttt	gac	aac	cgt	gtc	tca	tac	aga	18987
Lys	Asn	Gly	Glu	Glu	Val	Pro	Phe	Asp	Asn	Arg	Val	Ser	Tyr	Arg	
				6275					6280					6285	
gtt	gat	aag	tac	aag	cac	atg	tta	acc	att	aaa	gac	tgt	ggc	ttc	19032
Val	Asp	Lys	Tyr	Lys	His	Met	Leu	Thr	Ile	Lys	Asp	Cys	Gly	Phe	
				6290					6295					6300	
cca	gat	gaa	ggc	gaa	tac	att	gtc	act	gct	gga	caa	gat	aaa	tct	19077
Pro	Asp	Glu	Gly	Glu	Tyr	Ile	Val	Thr	Ala	Gly	Gln	Asp	Lys	Ser	
				6305					6310					6315	
gtt	gct	gag	ctt	ctc	atc	ata	gaa	gcc	ccg	aca	gaa	ttt	gtg	gaa	19122
Val	Ala	Glu	Leu	Leu	Ile	Ile	Glu	Ala	Pro	Thr	Glu	Phe	Val	Glu	
				6320					6325					6330	
cac	ttg	gaa	gat	cag	aca	gtc	act	gag	ttc	gat	gac	gct	gtc	ttc	19167
His	Leu	Glu	Asp	Gln	Thr	Val	Thr	Glu	Phe	Asp	Asp	Ala	Val	Phe	
				6335					6340					6345	
tcc	tgc	cag	ctc	tcc	aga	gag	aaa	gcc	aat	gta	aaa	tgg	tac	aga	19212
Ser	Cys	Gln	Leu	Ser	Arg	Glu	Lys	Ala	Asn	Val	Lys	Trp	Tyr	Arg	
				6350					6355					6360	

aat ggg aga gaa atc	aaa gaa ggc aaa aaa	tac aaa ttt gaa aaa	19257
Asn Gly Arg Glu Ile	Lys Glu Gly Lys Lys	Tyr Lys Phe Glu Lys	
6365	6370	6375	
gat gga agt ata cac	aga ctc att ata aaa	gat tgc agg ctg gat	19302
Asp Gly Ser Ile His	Arg Leu Ile Ile Lys	Asp Cys Arg Leu Asp	
6380	6385	6390	
gat gag tgt gaa tat	gct tgc ggg gta gaa	gac agg aag tct cgt	19347
Asp Glu Cys Glu Tyr	Ala Cys Gly Val Glu	Asp Arg Lys Ser Arg	
6395	6400	6405	
gct aga ctt ttt gtg	gaa gaa att cct gtt	gag atc atc agg cct	19392
Ala Arg Leu Phe Val	Glu Glu Ile Pro Val	Glu Ile Ile Arg Pro	
6410	6415	6420	
cca caa gat att ctt	gaa gcc cct ggt gct	gat gtt gtc ttt tta	19437
Pro Gln Asp Ile Leu	Glu Ala Pro Gly Ala	Asp Val Val Phe Leu	
6425	6430	6435	
gca gaa ctc aat aaa	gat aag gtg gaa gtc	caa tgg cta aga aat	19482
Ala Glu Leu Asn Lys	Asp Lys Val Glu Val	Gln Trp Leu Arg Asn	
6440	6445	6450	
aac atg gtt gtt gtc	cag ggt gat aaa cac	cag atg atg agt gaa	19527
Asn Met Val Val Val	Gln Gly Asp Lys His	Gln Met Met Ser Glu	
6455	6460	6465	
gga aag ata cat cga	cta cag att tgt gat	att aag ccc cgt gac	19572
Gly Lys Ile His Arg	Leu Gln Ile Cys Asp	Ile Lys Pro Arg Asp	
6470	6475	6480	
cag ggt gaa tac aga	ttt att gcc aaa gac	aaa gaa gcc aga gct	19617
Gln Gly Glu Tyr Arg	Phe Ile Ala Lys Asp	Lys Glu Ala Arg Ala	
6485	6490	6495	
aag ctt gaa ctg gca	gct gca cca aaa atc	aag aca gct gac caa	19662
Lys Leu Glu Leu Ala	Ala Ala Pro Lys Ile	Lys Thr Ala Asp Gln	
6500	6505	6510	
gac ctt gtg gtt gat	gtt ggc aag cct ctg	aca atg gtg gtg cca	19707
Asp Leu Val Val Asp	Val Gly Lys Pro Leu	Thr Met Val Val Pro	
6515	6520	6525	
tat gat gcc tac ccc	aaa gca gaa gct gaa	tgg ttt aaa gaa aat	19752
Tyr Asp Ala Tyr Pro	Lys Ala Glu Ala Glu	Trp Phe Lys Glu Asn	
6530	6535	6540	
gaa cct tta tct aca	aaa acc att gat act	acg gct gaa caa act	19797
Glu Pro Leu Ser Thr	Lys Thr Ile Asp Thr	Thr Ala Glu Gln Thr	
6545	6550	6555	
tct ttc aga att tta	gaa gcc aag aaa gga	gac aaa ggg agg tat	19842
Ser Phe Arg Ile Leu	Glu Ala Lys Lys Gly	Asp Lys Gly Arg Tyr	
6560	6565	6570	
aaa att gtg ctt cag	aac aaa cat gga aaa	gca gaa gga ttc atc	19887
Lys Ile Val Leu Gln	Asn Lys His Gly Lys	Ala Glu Gly Phe Ile	

6575					6580					6585					
aat tta aaa gtt att	gat gtt cct ggg cca	gta cgt aac tta gaa												19932	
Asn Leu Lys Val Ile	Asp Val Pro Gly Pro	Val Arg Asn Leu Glu													
	6590	6595													
gtg aca gaa aca ttt	gat ggt gaa gtg agc	ctt gct tgg gaa gaa												19977	
Val Thr Glu Thr Phe	Asp Gly Glu Val Ser	Leu Ala Trp Glu Glu													
	6605	6610													
cct tta act gat ggt	gga agc aaa atc ata	ggg tac gtt gtt gaa												20022	
Pro Leu Thr Asp Gly	Gly Ser Lys Ile Ile	Gly Tyr Val Val Glu													
	6620	6625													
aga cgt gac att aag	aga aag acc tgg gtt	ctg gcc aca gac cgt												20067	
Arg Arg Asp Ile Lys	Arg Lys Thr Trp Val	Leu Ala Thr Asp Arg													
	6635	6640													
gca gag agt tgt gag	ttt act gtc act ggt	cta cag aaa gga gga												20112	
Ala Glu Ser Cys Glu	Phe Thr Val Thr Gly	Leu Gln Lys Gly Gly													
	6650	6655													
gtt gag tac cta ttc	cgt gtg agt gca aga	aac aga gtt ggc act												20157	
Val Glu Tyr Leu Phe	Arg Val Ser Ala Arg	Asn Arg Val Gly Thr													
	6665	6670													
ggg gag cca gta gaa	act gac aat cct gta	gaa gca agg agt aaa												20202	
Gly Glu Pro Val Glu	Thr Asp Asn Pro Val	Glu Ala Arg Ser Lys													
	6680	6685													
tat gat gtt cca ggc	cct cct ttg aat gta	acc atc act gat gtg												20247	
Tyr Asp Val Pro Gly	Pro Pro Leu Asn Val	Thr Ile Thr Asp Val													
	6695	6700													
aat cga ttt ggt gtc	tca ctg aca tgg gaa	cca cca gag tat gat												20292	
Asn Arg Phe Gly Val	Ser Leu Thr Trp Glu	Pro Pro Glu Tyr Asp													
	6710	6715													
gga ggt gct gag atc	aca aac tac gtc att	gaa tta aga gac aag												20337	
Gly Gly Ala Glu Ile	Thr Asn Tyr Val Ile	Glu Leu Arg Asp Lys													
	6725	6730													
act tct atc agg tgg	gat act gcc atg act	gtg aga gct gaa gac												20382	
Thr Ser Ile Arg Trp	Asp Thr Ala Met Thr	Val Arg Ala Glu Asp													
	6740	6745													
ctg tct gca act gtt	act gat gtg gta gaa	gga cag gag tac agt												20427	
Leu Ser Ala Thr Val	Thr Asp Val Val Glu	Gly Gln Glu Tyr Ser													
	6755	6760													
ttc cga gtg aga gcc	caa aat cga att gga	gtt gga aaa cca agt												20472	
Phe Arg Val Arg Ala	Gln Asn Arg Ile Gly	Val Gly Lys Pro Ser													
	6770	6775													
gca gcc aca ccc ttc	gtc aaa gtt gct gat	cca att gag aga cca												20517	
Ala Ala Thr Pro Phe	Val Lys Val Ala Asp	Pro Ile Glu Arg Pro													
	6785	6790													

agt cct cct gta aac cta act tcc tca gat cag act cag tca tca	20562
Ser Pro Pro Val Asn Leu Thr Ser Ser Asp Gln Thr Gln Ser Ser	
6800 6805 6810	
ggt cag ctc aaa tgg gaa cct cct ctg aaa gat gga gga agc cca	20607
Val Gln Leu Lys Trp Glu Pro Pro Leu Lys Asp Gly Gly Ser Pro	
6815 6820 6825	
ata tta ggc tat ata att gag cga tgc gaa gaa gga aaa gat aat	20652
Ile Leu Gly Tyr Ile Ile Glu Arg Cys Glu Glu Gly Lys Asp Asn	
6830 6835 6840	
tgg att cgt tgc aat atg aaa ctt gtc cct gaa ctg act tac aag	20697
Trp Ile Arg Cys Asn Met Lys Leu Val Pro Glu Leu Thr Tyr Lys	
6845 6850 6855	
ggt acc gga ttg gaa aaa gga aat aaa tat tta tat aga gta tct	20742
Val Thr Gly Leu Glu Lys Gly Asn Lys Tyr Leu Tyr Arg Val Ser	
6860 6865 6870	
gca gaa aat aaa gct ggt gtt tca gat cca tct gaa att ctt ggt	20787
Ala Glu Asn Lys Ala Gly Val Ser Asp Pro Ser Glu Ile Leu Gly	
6875 6880 6885	
cct ctc acc gct gac gat gca ttt gtt gaa cca aca atg gat tta	20832
Pro Leu Thr Ala Asp Asp Ala Phe Val Glu Pro Thr Met Asp Leu	
6890 6895 6900	
agt gca ttt aaa gat ggt ctg gaa gtt att gtc cca aat cct atc	20877
Ser Ala Phe Lys Asp Gly Leu Glu Val Ile Val Pro Asn Pro Ile	
6905 6910 6915	
acg atc ctg gtt cca agt aca ggc tat cca agg cca act gca acc	20922
Thr Ile Leu Val Pro Ser Thr Gly Tyr Pro Arg Pro Thr Ala Thr	
6920 6925 6930	
tgg tgt ttt gga gat aaa gta cta gaa aca ggg gac cgg gtg aaa	20967
Trp Cys Phe Gly Asp Lys Val Leu Glu Thr Gly Asp Arg Val Lys	
6935 6940 6945	
atg aag acc ttg tct gcc tat gcc gaa ctt gtc att tct cca agt	21012
Met Lys Thr Leu Ser Ala Tyr Ala Glu Leu Val Ile Ser Pro Ser	
6950 6955 6960	
gaa cgt tca gac aag ggc att tat aca ctg aaa tta gaa aac cgt	21057
Glu Arg Ser Asp Lys Gly Ile Tyr Thr Leu Lys Leu Glu Asn Arg	
6965 6970 6975	
gtg aaa aca att tct ggg gaa att gat gtc aat gta att gct cgc	21102
Val Lys Thr Ile Ser Gly Glu Ile Asp Val Asn Val Ile Ala Arg	
6980 6985 6990	
cca agt gca ccc aaa gaa ttg aaa ttt ggt gat ata acc aag gac	21147
Pro Ser Ala Pro Lys Glu Leu Lys Phe Gly Asp Ile Thr Lys Asp	
6995 7000 7005	
tca gta cat ttg act tgg gaa cca cct gat gat gat gga gga agt	21192
Ser Val His Leu Thr Trp Glu Pro Pro Asp Asp Asp Gly Gly Ser	

7010					7015					7020					
ccg	tta	act	gga	tac	gtt	gtt	gaa	aaa	cga	gaa	gtc	agc	cgg	aaa	21237
Pro	Leu	Thr	Gly	Tyr	Val	Val	Glu	Lys	Arg	Glu	Val	Ser	Arg	Lys	
				7025					7030					7035	
aca	tgg	act	aaa	gtt	atg	gac	ttt	gtg	act	gat	cta	gaa	ttc	aca	21282
Thr	Trp	Thr	Lys	Val	Met	Asp	Phe	Val	Thr	Asp	Leu	Glu	Phe	Thr	
				7040					7045					7050	
gtt	cct	gat	ctt	gtt	caa	gga	aaa	gag	tac	tta	ttt	aaa	gtt	tgt	21327
Val	Pro	Asp	Leu	Val	Gln	Gly	Lys	Glu	Tyr	Leu	Phe	Lys	Val	Cys	
				7055					7060					7065	
gct	cgt	aac	aaa	tgt	ggc	cct	gga	gaa	cct	gca	tat	gtt	gat	gaa	21372
Ala	Arg	Asn	Lys	Cys	Gly	Pro	Gly	Glu	Pro	Ala	Tyr	Val	Asp	Glu	
				7070					7075					7080	
cct	gta	aat	atg	tca	act	cct	gca	acg	gta	cct	gac	cca	cca	gag	21417
Pro	Val	Asn	Met	Ser	Thr	Pro	Ala	Thr	Val	Pro	Asp	Pro	Pro	Glu	
				7085					7090					7095	
aat	gtt	aaa	tgg	aga	gat	cga	aca	gcc	aat	agc	atc	ttc	tta	aca	21462
Asn	Val	Lys	Trp	Arg	Asp	Arg	Thr	Ala	Asn	Ser	Ile	Phe	Leu	Thr	
				7100					7105					7110	
tgg	gat	cca	cct	aaa	aat	gat	ggg	ggg	tca	cgc	atc	aaa	gga	tat	21507
Trp	Asp	Pro	Pro	Lys	Asn	Asp	Gly	Gly	Ser	Arg	Ile	Lys	Gly	Tyr	
				7115					7120					7125	
ata	gtt	gaa	aga	tgt	cca	cgt	ggg	tct	gat	aaa	tgg	gtt	gcc	tgt	21552
Ile	Val	Glu	Arg	Cys	Pro	Arg	Gly	Ser	Asp	Lys	Trp	Val	Ala	Cys	
				7130					7135					7140	
gga	gaa	cct	gtt	gca	gaa	aca	aaa	atg	gaa	gtg	aca	ggg	ctt	gag	21597
Gly	Glu	Pro	Val	Ala	Glu	Thr	Lys	Met	Glu	Val	Thr	Gly	Leu	Glu	
				7145					7150					7155	
gaa	ggc	aaa	tgg	tat	gcc	tac	cgc	gtg	aag	acc	tta	aac	agg	cag	21642
Glu	Gly	Lys	Trp	Tyr	Ala	Tyr	Arg	Val	Lys	Thr	Leu	Asn	Arg	Gln	
				7160					7165					7170	
ggg	gct	agc	aaa	cca	agc	aga	ccc	aca	gag	gaa	atc	cag	gct	gtg	21687
Gly	Ala	Ser	Lys	Pro	Ser	Arg	Pro	Thr	Glu	Glu	Ile	Gln	Ala	Val	
				7175					7180					7185	
gac	aca	caa	gag	gcc	cca	gaa	atc	ttc	ctc	gat	gtg	aag	ctc	ctt	21732
Asp	Thr	Gln	Glu	Ala	Pro	Glu	Ile	Phe	Leu	Asp	Val	Lys	Leu	Leu	
				7190					7195					7200	
gct	ggg	ctc	act	gta	aaa	gct	ggg	acc	aag	att	gaa	ctt	cct	gcc	21777
Ala	Gly	Leu	Thr	Val	Lys	Ala	Gly	Thr	Lys	Ile	Glu	Leu	Pro	Ala	
				7205					7210					7215	
acc	gta	acc	gga	aaa	cct	gaa	cct	aaa	ata	act	tgg	aca	aag	gct	21822
Thr	Val	Thr	Gly	Lys	Pro	Glu	Pro	Lys	Ile	Thr	Trp	Thr	Lys	Ala	
				7220					7225					7230	

gat atg att ctg aag	cag gac aaa aga att	acc att gaa aat gtc	21867
Asp Met Ile Leu Lys	Gln Asp Lys Arg Ile	Thr Ile Glu Asn Val	
7235	7240	7245	
cct aag aaa tcc aca	gtg act att gtt gat	agt aag aga agt gac	21912
Pro Lys Lys Ser Thr	Val Thr Ile Val Asp	Ser Lys Arg Ser Asp	
7250	7255	7260	
act ggc aca tat atc	att gag gct gtg aat	gtg tgt ggc cgg gcc	21957
Thr Gly Thr Tyr Ile	Ile Glu Ala Val Asn	Val Cys Gly Arg Ala	
7265	7270	7275	
act gct gtg gtg gaa	gtg aac gtc tta gat	aaa ccc gga cca cca	22002
Thr Ala Val Val Glu	Val Asn Val Leu Asp	Lys Pro Gly Pro Pro	
7280	7285	7290	
gct gcc ttt gac atc	aca gat gta acc aat	gag tca tgt ctt cta	22047
Ala Ala Phe Asp Ile	Thr Asp Val Thr Asn	Glu Ser Cys Leu Leu	
7295	7300	7305	
aca tgg aac cca cca	cgc gat gat ggt gga	tct aag atc aca aac	22092
Thr Trp Asn Pro Pro	Arg Asp Asp Gly Gly	Ser Lys Ile Thr Asn	
7310	7315	7320	
tat gtt gtg gag aga	cga gca act gat agt	gaa gtg tgg cac aag	22137
Tyr Val Val Glu Arg	Arg Ala Thr Asp Ser	Glu Val Trp His Lys	
7325	7330	7335	
ctc tca tcc acc gtc	aag gat aca aac ttc	aag gcc acc aaa tta	22182
Leu Ser Ser Thr Val	Lys Asp Thr Asn Phe	Lys Ala Thr Lys Leu	
7340	7345	7350	
atc ccc aat aaa gag	tac atc ttc aga gtt	gct gca gaa aac atg	22227
Ile Pro Asn Lys Glu	Tyr Ile Phe Arg Val	Ala Ala Glu Asn Met	
7355	7360	7365	
tat ggt gct ggt gaa	cca gtt cag gcc tct	cca ata aca gcc aaa	22272
Tyr Gly Ala Gly Glu	Pro Val Gln Ala Ser	Pro Ile Thr Ala Lys	
7370	7375	7380	
tat cag ttt gat cca	cct ggt cct cca act	cgc cta gaa cct tct	22317
Tyr Gln Phe Asp Pro	Pro Gly Pro Pro Thr	Arg Leu Glu Pro Ser	
7385	7390	7395	
gat atc act aaa gac	gca gtg act ctc aca	tgg tgt gag cca gat	22362
Asp Ile Thr Lys Asp	Ala Val Thr Leu Thr	Trp Cys Glu Pro Asp	
7400	7405	7410	
gat gat ggt ggc agc	cca atc aca gga tac	tgg gtt gaa aga ctg	22407
Asp Asp Gly Gly Ser	Pro Ile Thr Gly Tyr	Trp Val Glu Arg Leu	
7415	7420	7425	
gat cct gat aca gat	aaa tgg gtt aga tgc	aat aag atg cca gta	22452
Asp Pro Asp Thr Asp	Lys Trp Val Arg Cys	Asn Lys Met Pro Val	
7430	7435	7440	
aag gac aca aca tac	aga gtg aaa ggt ctc	act aat aag aaa aaa	22497
Lys Asp Thr Thr Tyr	Arg Val Lys Gly Leu	Thr Asn Lys Lys Lys	

	7445	7450	7455	
tac aga ttc cgt gtg ttg gct gaa aat ctt gct gga cct gga aaa				22542
Tyr Arg Phe Arg Val Leu Ala Glu Asn Leu Ala Gly Pro Gly Lys	7460	7465	7470	
cca agc aaa tca act gaa cca atc tta ata aag gat ccc ata gat				22587
Pro Ser Lys Ser Thr Glu Pro Ile Leu Ile Lys Asp Pro Ile Asp	7475	7480	7485	
cct cca tgg ccc cct gga aaa cca act gta aaa gat gta ggc aaa				22632
Pro Pro Trp Pro Pro Gly Lys Pro Thr Val Lys Asp Val Gly Lys	7490	7495	7500	
aca tca gta agg ttg aat tgg aca aaa cca gaa cat gat gga ggt				22677
Thr Ser Val Arg Leu Asn Trp Thr Lys Pro Glu His Asp Gly Gly	7505	7510	7515	
gca aag att gag tct tat gtc att gaa atg ctg aag act gga aca				22722
Ala Lys Ile Glu Ser Tyr Val Ile Glu Met Leu Lys Thr Gly Thr	7520	7525	7530	
gat gag tgg gtc aga gtg gcg gaa ggg gtt ccc acc act cag cac				22767
Asp Glu Trp Val Arg Val Ala Glu Gly Val Pro Thr Thr Gln His	7535	7540	7545	
ttg ctc cca ggg ctc atg gaa gga cag gaa tac tca ttc cga gtt				22812
Leu Leu Pro Gly Leu Met Glu Gly Gln Glu Tyr Ser Phe Arg Val	7550	7555	7560	
aga gct gtg aat aag gct ggg gaa agt gaa ccc agt gaa ccc agt				22857
Arg Ala Val Asn Lys Ala Gly Glu Ser Glu Pro Ser Glu Pro Ser	7565	7570	7575	
gac cct gtg ctt tgc cgg gag aag cta tat cct cca tca cca cca				22902
Asp Pro Val Leu Cys Arg Glu Lys Leu Tyr Pro Pro Ser Pro Pro	7580	7585	7590	
cgc tgg ctt gaa gtt att aat atc aca aaa aat aca gca gac cta				22947
Arg Trp Leu Glu Val Ile Asn Ile Thr Lys Asn Thr Ala Asp Leu	7595	7600	7605	
aaa tgg aca gtt cct gag aaa gat gga ggg tcc ccc atc acc aac				22992
Lys Trp Thr Val Pro Glu Lys Asp Gly Gly Ser Pro Ile Thr Asn	7610	7615	7620	
tac att gtg gaa aag aga gac gtc agg cga aaa ggc tgg caa aca				23037
Tyr Ile Val Glu Lys Arg Asp Val Arg Arg Lys Gly Trp Gln Thr	7625	7630	7635	
gtg gat acc act gtc aag gac acc aag tgc aca gtc acc cca ctg				23082
Val Asp Thr Thr Val Lys Asp Thr Lys Cys Thr Val Thr Pro Leu	7640	7645	7650	
act gag ggc tct tta tat gtg ttc cga gtt gct gca gaa aat gct				23127
Thr Glu Gly Ser Leu Tyr Val Phe Arg Val Ala Ala Glu Asn Ala	7655	7660	7665	

ata gga caa agc gac	tac acc gaa att gag	gac tct gtg ctg gcc	23172
Ile Gly Gln Ser Asp	Tyr Thr Glu Ile Glu	Asp Ser Val Leu Ala	
7670	7675	7680	
aaa gac acc ttt acc	act cct gga cca ccc	tac gcc ctg gca gtg	23217
Lys Asp Thr Phe Thr	Thr Pro Gly Pro Pro	Tyr Ala Leu Ala Val	
7685	7690	7695	
gtt gat gtg aca aaa	cga cat gtt gac cta	aag tgg gag cca cct	23262
Val Asp Val Thr Lys	Arg His Val Asp Leu	Lys Trp Glu Pro Pro	
7700	7705	7710	
aaa aat gat ggt gga	aga cca ata cag aga	tat gtc att gag aag	23307
Lys Asn Asp Gly Gly	Arg Pro Ile Gln Arg	Tyr Val Ile Glu Lys	
7715	7720	7725	
aaa gaa agg tta ggt	acc cgt tgg gtg aaa	gct gga aag act gca	23352
Lys Glu Arg Leu Gly	Thr Arg Trp Val Lys	Ala Gly Lys Thr Ala	
7730	7735	7740	
gga cct gac tgt aac	ttc aga gta act gat	gtc atc gaa gga aca	23397
Gly Pro Asp Cys Asn	Phe Arg Val Thr Asp	Val Ile Glu Gly Thr	
7745	7750	7755	
gag gtc cag ttt cag	gtt cgg gct gaa aat	gaa gct gga gtt ggc	23442
Glu Val Gln Phe Gln	Val Arg Ala Glu Asn	Glu Ala Gly Val Gly	
7760	7765	7770	
cac cca agt gaa ccc	aca gaa atc cta tcc	att gaa gat cca aca	23487
His Pro Ser Glu Pro	Thr Glu Ile Leu Ser	Ile Glu Asp Pro Thr	
7775	7780	7785	
agt cct ccc tca cca	ccc ctt gac cta cat	gtg act gat gct ggg	23532
Ser Pro Pro Ser Pro	Pro Leu Asp Leu His	Val Thr Asp Ala Gly	
7790	7795	7800	
aga aaa cac att gcc	att gct tgg aag cct	cca gag aaa aat ggt	23577
Arg Lys His Ile Ala	Ile Ala Trp Lys Pro	Pro Glu Lys Asn Gly	
7805	7810	7815	
gga agt cct atc ata	gga tac cat gtt gaa	atg tgt cca gta ggc	23622
Gly Ser Pro Ile Ile	Gly Tyr His Val Glu	Met Cys Pro Val Gly	
7820	7825	7830	
act gag aaa tgg atg	aga gtt aat tct cgc	cca ata aag gac ttg	23667
Thr Glu Lys Trp Met	Arg Val Asn Ser Arg	Pro Ile Lys Asp Leu	
7835	7840	7845	
aaa ttc aag gtt gaa	gaa ggt gtt gtt cct	gac aaa gaa tat gtc	23712
Lys Phe Lys Val Glu	Glu Gly Val Val Pro	Asp Lys Glu Tyr Val	
7850	7855	7860	
ctg aga gtg aga gca	gtc aat gct att ggt	gtc agc gag cca tct	23757
Leu Arg Val Arg Ala	Val Asn Ala Ile Gly	Val Ser Glu Pro Ser	
7865	7870	7875	
gaa atc tct gaa aat	gtg gtt gcc aaa gac	cca gac tgc aag cca	23802
Glu Ile Ser Glu Asn	Val Val Ala Lys Asp	Pro Asp Cys Lys Pro	

	7880	7885	7890	
aca att gac ctg gag act cat gac att att gtt att gaa ggt gaa	Thr Ile Asp Leu Glu	Thr His Asp Ile Ile	Val Ile Glu Gly Glu	23847
	7895	7900	7905	
aag tta agc att cct gtt ccc ttc aga gct gtc cca gtt cca act	Lys Leu Ser Ile Pro	Val Pro Phe Arg Ala	Val Pro Val Pro Thr	23892
	7910	7915	7920	
gtt agt tgg cat aaa gat ggc aaa gaa gtt aaa gca agt gat aga	Val Ser Trp His Lys	Asp Gly Lys Glu Val	Lys Ala Ser Asp Arg	23937
	7925	7930	7935	
tta aca atg aag aat gat cac atc tct gca cac ctt gaa gtt ccc	Leu Thr Met Lys Asn	Asp His Ile Ser Ala	His Leu Glu Val Pro	23982
	7940	7945	7950	
aag agt gtc cgt gca gat gcc gga att tat acc att aca ctg gag	Lys Ser Val Arg Ala	Asp Ala Gly Ile Tyr	Thr Ile Thr Leu Glu	24027
	7955	7960	7965	
aat aag ctc ggc tca gca aca gcc tca atc aat gtc aaa gtc ata	Asn Lys Leu Gly Ser	Ala Thr Ala Ser Ile	Asn Val Lys Val Ile	24072
	7970	7975	7980	
ggc cta cct gga cca tgc aaa gat att aaa gca agt gac att acc	Gly Leu Pro Gly Pro	Cys Lys Asp Ile Lys	Ala Ser Asp Ile Thr	24117
	7985	7990	7995	
aag agt tct tgt aag tta act tgg gaa cct cca gaa ttt gat ggt	Lys Ser Ser Cys Lys	Leu Thr Trp Glu Pro	Pro Glu Phe Asp Gly	24162
	8000	8005	8010	
gga acc cca att ctt cat tat gtc ctg gag cgc aga gaa gct ggg	Gly Thr Pro Ile Leu	His Tyr Val Leu Glu	Arg Arg Glu Ala Gly	24207
	8015	8020	8025	
agg aga aca tat ata cca gtc atg tct ggt gag aac aaa ctg tca	Arg Arg Thr Tyr Ile	Pro Val Met Ser Gly	Glu Asn Lys Leu Ser	24252
	8030	8035	8040	
tgg act gtg aag gat ctc ata cca aat ggt gaa tac ttc ttc cgt	Trp Thr Val Lys Asp	Leu Ile Pro Asn Gly	Glu Tyr Phe Phe Arg	24297
	8045	8050	8055	
gtt aaa gca gtc aac aag gtt ggt gga gga gaa tat att gaa ctg	Val Lys Ala Val Asn	Lys Val Gly Gly Gly	Glu Tyr Ile Glu Leu	24342
	8060	8065	8070	
aaa aat cca gtc att gct caa gat cca aag caa ccc cct gat cca	Lys Asn Pro Val Ile	Ala Gln Asp Pro Lys	Gln Pro Pro Asp Pro	24387
	8075	8080	8085	
cct gta gat gta gag gtt cat aat cct aca gcg gag gca atg act	Pro Val Asp Val Glu	Val His Asn Pro Thr	Ala Glu Ala Met Thr	24432
	8090	8095	8100	

att aca tgg aag cca cct ttg tat gat gga ggg agc aag ata atg	24477
Ile Thr Trp Lys Pro Pro Leu Tyr Asp Gly Gly Ser Lys Ile Met	
8105 8110 8115	
ggc tac atc ata gag aag att gct aag ggt gaa gaa agg tgg aag	24522
Gly Tyr Ile Ile Glu Lys Ile Ala Lys Gly Glu Glu Arg Trp Lys	
8120 8125 8130	
aga tgc aat gaa cac ctg gta cca atc ctg acc tat aca gca aaa	24567
Arg Cys Asn Glu His Leu Val Pro Ile Leu Thr Tyr Thr Ala Lys	
8135 8140 8145	
gga ctt gaa gag ggg aaa gag tac caa ttc cgt gtg cga gca gag	24612
Gly Leu Glu Glu Gly Lys Glu Tyr Gln Phe Arg Val Arg Ala Glu	
8150 8155 8160	
aac gcc gcg ggt att agt gaa cct tct cgg gct act cct cca acc	24657
Asn Ala Ala Gly Ile Ser Glu Pro Ser Arg Ala Thr Pro Pro Thr	
8165 8170 8175	
aaa gct gta gat ccc att gat gcc ccc aaa gtc att ctg aga aca	24702
Lys Ala Val Asp Pro Ile Asp Ala Pro Lys Val Ile Leu Arg Thr	
8180 8185 8190	
agc cta gaa gtg aaa cga ggt gat gaa ata gca ctt gat gca agt	24747
Ser Leu Glu Val Lys Arg Gly Asp Glu Ile Ala Leu Asp Ala Ser	
8195 8200 8205	
att tct gga tca cct tac cca act att aca tgg ata aag gat gaa	24792
Ile Ser Gly Ser Pro Tyr Pro Thr Ile Thr Trp Ile Lys Asp Glu	
8210 8215 8220	
aat gtt att gta cca gag gaa att aag aag cgt gca gca ccc ttg	24837
Asn Val Ile Val Pro Glu Glu Ile Lys Lys Arg Ala Ala Pro Leu	
8225 8230 8235	
gtt agg aga agg aag ggt gaa gtt caa gaa gaa gaa cca ttt gtc	24882
Val Arg Arg Arg Lys Gly Glu Val Gln Glu Glu Glu Pro Phe Val	
8240 8245 8250	
ctg cct ctg aca cag cgt ttg agt att gac aac agc aaa aag gga	24927
Leu Pro Leu Thr Gln Arg Leu Ser Ile Asp Asn Ser Lys Lys Gly	
8255 8260 8265	
gaa tct cag cta cgc gtc cga gat tct ctc cga cct gac cat ggt	24972
Glu Ser Gln Leu Arg Val Arg Asp Ser Leu Arg Pro Asp His Gly	
8270 8275 8280	
ctg tat atg atc aaa gtt gaa aat gac cac ggt att gca aaa gct	25017
Leu Tyr Met Ile Lys Val Glu Asn Asp His Gly Ile Ala Lys Ala	
8285 8290 8295	
cct tgt act gtc agt gtg tta gat aca ccg gga cca cca atc aac	25062
Pro Cys Thr Val Ser Val Leu Asp Thr Pro Gly Pro Pro Ile Asn	
8300 8305 8310	
ttt gta ttt gaa gat atc aga aag acc tca gtc ctt tgt aaa tgg	25107
Phe Val Phe Glu Asp Ile Arg Lys Thr Ser Val Leu Cys Lys Trp	

	8315	8320	8325	
	gaa cca ccc ctt gat	gat ggt ggc agt gaa	atc ata aac tac act	25152
	Glu Pro Pro Leu Asp	Asp Gly Gly Ser Glu	Ile Ile Asn Tyr Thr	
	8330	8335	8340	
	ttg gaa aag aaa gac	aag aca aaa ccc gac	tca gaa tgg att gtt	25197
	Leu Glu Lys Lys Asp	Lys Thr Lys Pro Asp	Ser Glu Trp Ile Val	
	8345	8350	8355	
	gtc act tca aca ctt	aga cat tgc aaa tat	tca gta aca aaa ctg	25242
	Val Thr Ser Thr Leu	Arg His Cys Lys Tyr	Ser Val Thr Lys Leu	
	8360	8365	8370	
	att gaa gga aaa gag	tac ctc ttc cgt gta	aga gct gaa aac aga	25287
	Ile Glu Gly Lys Glu	Tyr Leu Phe Arg Val	Arg Ala Glu Asn Arg	
	8375	8380	8385	
	ttt ggg cca ggt cca	cca tgt gtt tca aag	cca ctt gtg gct aaa	25332
	Phe Gly Pro Gly Pro	Pro Cys Val Ser Lys	Pro Leu Val Ala Lys	
	8390	8395	8400	
	gat cca ttt gga cca	cct gat gca cca gat	aag ccc att gtg gaa	25377
	Asp Pro Phe Gly Pro	Pro Asp Ala Pro Asp	Lys Pro Ile Val Glu	
	8405	8410	8415	
	gat gtt acc agc aac	agt atg cta gtg aaa	tgg aat gaa cca aaa	25422
	Asp Val Thr Ser Asn	Ser Met Leu Val Lys	Trp Asn Glu Pro Lys	
	8420	8425	8430	
	gat aat gga agc ccc	att ttg ggt tac tgg	ctt gaa aaa cgt gaa	25467
	Asp Asn Gly Ser Pro	Ile Leu Gly Tyr Trp	Leu Glu Lys Arg Glu	
	8435	8440	8445	
	gtt aac agt aca cat	tgg tct cgt gtc aac	aaa agc ctt ctg aat	25512
	Val Asn Ser Thr His	Trp Ser Arg Val Asn	Lys Ser Leu Leu Asn	
	8450	8455	8460	
	gcc ttg aaa gcc aat	gta gat ggc tta tta	gaa gga ctc acc tat	25557
	Ala Leu Lys Ala Asn	Val Asp Gly Leu Leu	Glu Gly Leu Thr Tyr	
	8465	8470	8475	
	gtc ttc aga gta tgt	gct gaa aat gca gct	gga cct gga aag ttc	25602
	Val Phe Arg Val Cys	Ala Glu Asn Ala Ala	Gly Pro Gly Lys Phe	
	8480	8485	8490	
	agt cca cct tca gat	ccc aaa aca gca cat	gat cca atc tct cct	25647
	Ser Pro Pro Ser Asp	Pro Lys Thr Ala His	Asp Pro Ile Ser Pro	
	8495	8500	8505	
	cct ggg cca cct atc	cca aga gtc act gac	aca agc tct aca act	25692
	Pro Gly Pro Pro Ile	Pro Arg Val Thr Asp	Thr Ser Ser Thr Thr	
	8510	8515	8520	
	att gaa cta gaa tgg	gaa ccc cca gct ttc	aat ggt ggt ggg gaa	25737
	Ile Glu Leu Glu Trp	Glu Pro Pro Ala Phe	Asn Gly Gly Gly Glu	
	8525	8530	8535	

att gtt ggc tat ttt gtt gat aag cag ttg gtt ggc aca aat aaa	25782
Ile Val Gly Tyr Phe Val Asp Lys Gln Leu Val Gly Thr Asn Lys	
8540 8545 8550	
tgg tca cgc tgc aca gag aag atg atc aag gtc cgt cag tac acc	25827
Trp Ser Arg Cys Thr Glu Lys Met Ile Lys Val Arg Gln Tyr Thr	
8555 8560 8565	
gtc aaa gaa atc cga gag ggt gct gat tac aaa ctt cgg gtg agt	25872
Val Lys Glu Ile Arg Glu Gly Ala Asp Tyr Lys Leu Arg Val Ser	
8570 8575 8580	
gct gtc aat gcc gca ggg gaa gga ccg cct gga gaa aca caa cct	25917
Ala Val Asn Ala Ala Gly Glu Gly Pro Pro Gly Glu Thr Gln Pro	
8585 8590 8595	
gtt act gtg gct gaa cca caa gag cct cca gct gtg gaa ctg gat	25962
Val Thr Val Ala Glu Pro Gln Glu Pro Pro Ala Val Glu Leu Asp	
8600 8605 8610	
gtt tct gtc aag ggt gga ata caa ata atg gct ggg aag act ctt	26007
Val Ser Val Lys Gly Gly Ile Gln Ile Met Ala Gly Lys Thr Leu	
8615 8620 8625	
aga att cca gct gtg gtg act ggt cgc cct gta cct aca aaa gta	26052
Arg Ile Pro Ala Val Val Thr Gly Arg Pro Val Pro Thr Lys Val	
8630 8635 8640	
tgg acc aaa gaa gaa ggg gag ctg gat aaa gac cgt gtt gta ata	26097
Trp Thr Lys Glu Glu Gly Glu Leu Asp Lys Asp Arg Val Val Ile	
8645 8650 8655	
gac aac gtt gga acc aaa tct gaa cta att atc aag gat gca ctg	26142
Asp Asn Val Gly Thr Lys Ser Glu Leu Ile Ile Lys Asp Ala Leu	
8660 8665 8670	
cga aaa gac cat ggc aga tat gtg att aca gct aca aat agc tgt	26187
Arg Lys Asp His Gly Arg Tyr Val Ile Thr Ala Thr Asn Ser Cys	
8675 8680 8685	
ggg tcc aaa ttt gca gca gcc agg gta gaa gtt ttt gat gtc cct	26232
Gly Ser Lys Phe Ala Ala Ala Arg Val Glu Val Phe Asp Val Pro	
8690 8695 8700	
ggg cca gtt ctt gac tta aaa cct gtt gta aca aac aga aaa atg	26277
Gly Pro Val Leu Asp Leu Lys Pro Val Val Thr Asn Arg Lys Met	
8705 8710 8715	
tgt cta ctt aac tgg tct gat cca gaa gat gat gga gga agt gaa	26322
Cys Leu Leu Asn Trp Ser Asp Pro Glu Asp Asp Gly Gly Ser Glu	
8720 8725 8730	
ata aca ggc ttt atc att gaa aga aaa gat gcc aag atg cat act	26367
Ile Thr Gly Phe Ile Ile Glu Arg Lys Asp Ala Lys Met His Thr	
8735 8740 8745	
tgg aga caa cca ata gag act gag aga tct aaa tgt gac atc aca	26412
Trp Arg Gln Pro Ile Glu Thr Glu Arg Ser Lys Cys Asp Ile Thr	

	8750	8755	8760	
ggt ctg ctt gag gga	caa gaa tat aag ttc	cgt gtt att gcc aag	26457	
Gly Leu Leu Glu Gly	Gln Glu Tyr Lys Phe	Arg Val Ile Ala Lys		
	8765	8770	8775	
aac aag ttt ggc tgt	ggc cct cct gtt gaa	ata gga cca att ctt	26502	
Asn Lys Phe Gly Cys	Gly Pro Pro Val Glu	Ile Gly Pro Ile Leu		
	8780	8785	8790	
gca gtt gat cca cta	ggt cct cca aca tct	cca gag agg ctc aca	26547	
Ala Val Asp Pro Leu	Gly Pro Pro Thr Ser	Pro Glu Arg Leu Thr		
	8795	8800	8805	
tac act gaa aga caa	agg tcc act atc aca	ctt gac tgg aaa gag	26592	
Tyr Thr Glu Arg Gln	Arg Ser Thr Ile Thr	Leu Asp Trp Lys Glu		
	8810	8815	8820	
ccc cgc agt aat ggt	ggc agt ccc atc caa	gga tat atc att gaa	26637	
Pro Arg Ser Asn Gly	Gly Ser Pro Ile Gln	Gly Tyr Ile Ile Glu		
	8825	8830	8835	
aaa cgg cgt cat gac	aaa cct gac ttt gaa	aga gtt aac aag cga	26682	
Lys Arg Arg His Asp	Lys Pro Asp Phe Glu	Arg Val Asn Lys Arg		
	8840	8845	8850	
ctc tgc cca acc aca	tct ttt ctg gtt gaa	aat ctt gat gaa cac	26727	
Leu Cys Pro Thr Thr	Ser Phe Leu Val Glu	Asn Leu Asp Glu His		
	8855	8860	8865	
caa atg tat gag ttc	cgt gtc aaa gct gtc	aat gaa att ggt gaa	26772	
Gln Met Tyr Glu Phe	Arg Val Lys Ala Val	Asn Glu Ile Gly Glu		
	8870	8875	8880	
agt gaa cca tcc cta	cct ctt aat gta gtc	ata caa gat gat gaa	26817	
Ser Glu Pro Ser Leu	Pro Leu Asn Val Val	Ile Gln Asp Asp Glu		
	8885	8890	8895	
gtg cct cca act att	aag ttg cgt ctg agt	gtt cga gga gac act	26862	
Val Pro Pro Thr Ile	Lys Leu Arg Leu Ser	Val Arg Gly Asp Thr		
	8900	8905	8910	
atc aaa gtt aag gca	gga gag cct gtc cac	atc cct gca gat gtg	26907	
Ile Lys Val Lys Ala	Gly Glu Pro Val His	Ile Pro Ala Asp Val		
	8915	8920	8925	
aca ggc ctt cca atg	cct aag att gaa tgg	tcc aaa aat gaa act	26952	
Thr Gly Leu Pro Met	Pro Lys Ile Glu Trp	Ser Lys Asn Glu Thr		
	8930	8935	8940	
gta att gaa aaa ccc	act gat gca ctt cag	ata acc aag gaa gag	26997	
Val Ile Glu Lys Pro	Thr Asp Ala Leu Gln	Ile Thr Lys Glu Glu		
	8945	8950	8955	
gta tcc cga agt gag	gca aaa act gag ctt	agc att ccc aaa gcg	27042	
Val Ser Arg Ser Glu	Ala Lys Thr Glu Leu	Ser Ile Pro Lys Ala		
	8960	8965	8970	

gtc cgg gag gac aaa ggc act tac aca gtt act gct tcc aat cgc	27087
Val Arg Glu Asp Lys Gly Thr Tyr Thr Val Thr Ala Ser Asn Arg	
8975 8980 8985	
ctt ggc tca gtg ttc cga aat gtt cac gtt gaa gta tat gac cgc	27132
Leu Gly Ser Val Phe Arg Asn Val His Val Glu Val Tyr Asp Arg	
8990 8995 9000	
cca tcc cca cca aga aat ctt gct gtt act gac att aaa gct gaa	27177
Pro Ser Pro Pro Arg Asn Leu Ala Val Thr Asp Ile Lys Ala Glu	
9005 9010 9015	
tct tgc tac ttg aca tgg gat gcc cct ctt gat aat ggt ggc agt	27222
Ser Cys Tyr Leu Thr Trp Asp Ala Pro Leu Asp Asn Gly Gly Ser	
9020 9025 9030	
gaa atc acc cat tat gtt att gac aaa cgt gat gca agt agg aag	27267
Glu Ile Thr His Tyr Val Ile Asp Lys Arg Asp Ala Ser Arg Lys	
9035 9040 9045	
aaa gca gaa tgg gag gaa gtc acc aac act gct gta gag aaa aga	27312
Lys Ala Glu Trp Glu Glu Val Thr Asn Thr Ala Val Glu Lys Arg	
9050 9055 9060	
tat ggg atc tgg aaa ctt atc ccc aat ggt cag tat gag ttc cga	27357
Tyr Gly Ile Trp Lys Leu Ile Pro Asn Gly Gln Tyr Glu Phe Arg	
9065 9070 9075	
gtc agg gca gtg aat aaa tat gga atc agt gat gag tgc aaa tca	27402
Val Arg Ala Val Asn Lys Tyr Gly Ile Ser Asp Glu Cys Lys Ser	
9080 9085 9090	
gat aaa gta gtc att caa gat cct tat cgc ctt cct gga cct cca	27447
Asp Lys Val Val Ile Gln Asp Pro Tyr Arg Leu Pro Gly Pro Pro	
9095 9100 9105	
gga aaa cca aaa gtt ttg gca cgc acc aaa gga tca atg cta gtg	27492
Gly Lys Pro Lys Val Leu Ala Arg Thr Lys Gly Ser Met Leu Val	
9110 9115 9120	
agc tgg act cct cct ttg gac aat ggt ggc tct cca att act ggc	27537
Ser Trp Thr Pro Pro Leu Asp Asn Gly Gly Ser Pro Ile Thr Gly	
9125 9130 9135	
tac tgg ctg gag aaa aga gaa gag gga agt cct tat tgg tca cgt	27582
Tyr Trp Leu Glu Lys Arg Glu Glu Gly Ser Pro Tyr Trp Ser Arg	
9140 9145 9150	
gtt agc cga gca cca ata acc aaa gtg gga ttg aaa ggc gtg gaa	27627
Val Ser Arg Ala Pro Ile Thr Lys Val Gly Leu Lys Gly Val Glu	
9155 9160 9165	
ttt aat gtt cct cgt ttg ctt gaa ggc gtt aaa tac cag ttc aga	27672
Phe Asn Val Pro Arg Leu Leu Glu Gly Val Lys Tyr Gln Phe Arg	
9170 9175 9180	
gcc atg gca ata aat gct gca gga att ggt cct ccc agt gaa cca	27717
Ala Met Ala Ile Asn Ala Ala Gly Ile Gly Pro Pro Ser Glu Pro	

	9185	9190	9195	
tca gat cca gag gtt	gca gga gat ccc ata	ttt cca ccg ggg cca	27762	
Ser Asp Pro Glu Val	Ala Gly Asp Pro Ile	Phe Pro Pro Gly Pro		
	9200	9205	9210	
cct tct tgc cca gaa	gtt aaa gat aaa acg	aag tca agc atc tca	27807	
Pro Ser Cys Pro Glu	Val Lys Asp Lys Thr	Lys Ser Ser Ile Ser		
	9215	9220	9225	
cta gga tgg aaa cct	cca gcc aaa gat ggt	ggc agc cca atc aaa	27852	
Leu Gly Trp Lys Pro	Pro Ala Lys Asp Gly	Gly Ser Pro Ile Lys		
	9230	9235	9240	
gga tac att gta gaa	atg caa gaa gaa ggt	act act gac tgg aaa	27897	
Gly Tyr Ile Val Glu	Met Gln Glu Glu Gly	Thr Thr Asp Trp Lys		
	9245	9250	9255	
aga gta aat gaa cca	gac aaa ctt ata act	acc tgt gaa tgt gtg	27942	
Arg Val Asn Glu Pro	Asp Lys Leu Ile Thr	Thr Cys Glu Cys Val		
	9260	9265	9270	
gtg cct aat ctg aaa	gag ctc agg aag tac	aga ttc aga gtg aaa	27987	
Val Pro Asn Leu Lys	Glu Leu Arg Lys Tyr	Arg Phe Arg Val Lys		
	9275	9280	9285	
gct gtc aat gaa gct	ggt gaa tct gaa cca	agt gat aca act ggg	28032	
Ala Val Asn Glu Ala	Gly Glu Ser Glu Pro	Ser Asp Thr Thr Gly		
	9290	9295	9300	
gag atc cct gcc act	gat att caa gag gaa	cca gaa gtt ttc att	28077	
Glu Ile Pro Ala Thr	Asp Ile Gln Glu Glu	Pro Glu Val Phe Ile		
	9305	9310	9315	
gac att gga gca cag	gac tgt ctg gtt tgt	aaa gct ggc tca cag	28122	
Asp Ile Gly Ala Gln	Asp Cys Leu Val Cys	Lys Ala Gly Ser Gln		
	9320	9325	9330	
att agg att cct gct	gtc atc aag gga cgc	cca aca cca aaa tca	28167	
Ile Arg Ile Pro Ala	Val Ile Lys Gly Arg	Pro Thr Pro Lys Ser		
	9335	9340	9345	
tct tgg gaa ttt gat	gga aag gca aag aaa	gca atg aag gat gga	28212	
Ser Trp Glu Phe Asp	Gly Lys Ala Lys Lys	Ala Met Lys Asp Gly		
	9350	9355	9360	
gtt cat gac ata ccc	gaa gat gca cag ctg	gag act gct gaa aac	28257	
Val His Asp Ile Pro	Glu Asp Ala Gln Leu	Glu Thr Ala Glu Asn		
	9365	9370	9375	
tcc tca gta att att	att ccg gag tgt aaa	cga tct cat aca ggc	28302	
Ser Ser Val Ile Ile	Ile Pro Glu Cys Lys	Arg Ser His Thr Gly		
	9380	9385	9390	
aaa tac agc atc aca	gcc aag aat aaa gca	gga caa aag act gca	28347	
Lys Tyr Ser Ile Thr	Ala Lys Asn Lys Ala	Gly Gln Lys Thr Ala		
	9395	9400	9405	

aat tgc aga gtt aaa gtc atg gat gta cca ggc cca ccc aaa gat	28392
Asn Cys Arg Val Lys Val Met Asp Val Pro Gly Pro Pro Lys Asp	
9410 9415 9420	
ctg aaa gtc agt gat atc aca agg ggt agt tgc aga ctt tca tgg	28437
Leu Lys Val Ser Asp Ile Thr Arg Gly Ser Cys Arg Leu Ser Trp	
9425 9430 9435	
aag atg cca gac gac gat gga gga gac agg atc aaa ggc tat gtt	28482
Lys Met Pro Asp Asp Asp Gly Gly Asp Arg Ile Lys Gly Tyr Val	
9440 9445 9450	
att gag aag agg act att gat gga aaa gcc tgg acc aaa gtc aat	28527
Ile Glu Lys Arg Thr Ile Asp Gly Lys Ala Trp Thr Lys Val Asn	
9455 9460 9465	
cca gac tgt gga agc acc aca ttt gta gtg cct gat ctc ctc tct	28572
Pro Asp Cys Gly Ser Thr Thr Phe Val Val Pro Asp Leu Leu Ser	
9470 9475 9480	
gaa cag caa tat ttc ttc cgt gtg cga gca gaa aac cgt ttt ggt	28617
Glu Gln Gln Tyr Phe Phe Arg Val Arg Ala Glu Asn Arg Phe Gly	
9485 9490 9495	
att ggc cca cct gtg gaa acc att cag agg acc act gcc aga gat	28662
Ile Gly Pro Pro Val Glu Thr Ile Gln Arg Thr Thr Ala Arg Asp	
9500 9505 9510	
ccg ata tat cct cct gat cct cct att aaa ctc aag att ggc ctc	28707
Pro Ile Tyr Pro Pro Asp Pro Pro Ile Lys Leu Lys Ile Gly Leu	
9515 9520 9525	
atc aca aag aac aca gtg cat ctg tca tgg aaa ccc ccg aag aat	28752
Ile Thr Lys Asn Thr Val His Leu Ser Trp Lys Pro Pro Lys Asn	
9530 9535 9540	
gat ggg ggc tcc cct gtt acc cac tat att gtt gag tgc ctt gca	28797
Asp Gly Gly Ser Pro Val Thr His Tyr Ile Val Glu Cys Leu Ala	
9545 9550 9555	
tgg gac cct act ggg aca aag aaa gaa gcc tgg agg cag tgc aat	28842
Trp Asp Pro Thr Gly Thr Lys Lys Glu Ala Trp Arg Gln Cys Asn	
9560 9565 9570	
aag cgt gat gtg gaa gaa ctg caa ttt act gtt gaa gac cta gta	28887
Lys Arg Asp Val Glu Glu Leu Gln Phe Thr Val Glu Asp Leu Val	
9575 9580 9585	
gaa ggt ggg gaa tat gaa ttc cga gtc aaa gct gtc aat gct gca	28932
Glu Gly Gly Glu Tyr Glu Phe Arg Val Lys Ala Val Asn Ala Ala	
9590 9595 9600	
gga gtc agc aag cct tca gcc act gtt ggc ccc tgt gac tgt caa	28977
Gly Val Ser Lys Pro Ser Ala Thr Val Gly Pro Cys Asp Cys Gln	
9605 9610 9615	
aga cca gac atg cca cca tca att gat cta aaa gaa ttc atg gag	29022
Arg Pro Asp Met Pro Pro Ser Ile Asp Leu Lys Glu Phe Met Glu	

9620					9625					9630					
gtt	gaa	gaa	gga	acc	aat	gtt	aac	att	gtg	gcc	aaa	att	aaa	ggc	29067
Val	Glu	Glu	Gly	Thr	Asn	Val	Asn	Ile	Val	Ala	Lys	Ile	Lys	Gly	
				9635					9640					9645	
gtg	cca	ttc	ccg	aca	cta	acc	tgg	ttt	aaa	gct	cct	cca	aag	aag	29112
Val	Pro	Phe	Pro	Thr	Leu	Thr	Trp	Phe	Lys	Ala	Pro	Pro	Lys	Lys	
				9650					9655					9660	
cct	gat	aac	aaa	gaa	cct	gtt	ctc	tat	gac	acc	cat	gtc	aac	aaa	29157
Pro	Asp	Asn	Lys	Glu	Pro	Val	Leu	Tyr	Asp	Thr	His	Val	Asn	Lys	
				9665					9670					9675	
ctg	gtg	gta	gat	gat	act	tgc	act	tta	gtt	att	ccg	cag	tct	cgc	29202
Leu	Val	Val	Asp	Asp	Thr	Cys	Thr	Leu	Val	Ile	Pro	Gln	Ser	Arg	
				9680					9685					9690	
agg	agt	gac	act	ggc	tta	tat	acc	atc	aca	gct	gta	aat	aat	ctg	29247
Arg	Ser	Asp	Thr	Gly	Leu	Tyr	Thr	Ile	Thr	Ala	Val	Asn	Asn	Leu	
				9695					9700					9705	
gga	aca	gca	tca	aag	gag	atg	aga	ctg	aat	gtc	ctg	ggc	cgt	cct	29292
Gly	Thr	Ala	Ser	Lys	Glu	Met	Arg	Leu	Asn	Val	Leu	Gly	Arg	Pro	
				9710					9715					9720	
ggc	cct	cca	gtg	gga	ccc	ata	aaa	ttt	gaa	tct	gtt	tca	gca	gat	29337
Gly	Pro	Pro	Val	Gly	Pro	Ile	Lys	Phe	Glu	Ser	Val	Ser	Ala	Asp	
				9725					9730					9735	
caa	atg	aca	cta	tct	tgg	ttt	cca	cct	aaa	gat	gat	ggc	ggg	tct	29382
Gln	Met	Thr	Leu	Ser	Trp	Phe	Pro	Pro	Lys	Asp	Asp	Gly	Gly	Ser	
				9740					9745					9750	
aag	att	aca	aac	tat	gta	att	gag	aaa	aga	gaa	gct	aac	agg	aag	29427
Lys	Ile	Thr	Asn	Tyr	Val	Ile	Glu	Lys	Arg	Glu	Ala	Asn	Arg	Lys	
				9755					9760					9765	
aca	tgg	gtc	cat	gtc	tcc	agt	gaa	cct	aag	gag	tgc	acg	tac	acg	29472
Thr	Trp	Val	His	Val	Ser	Ser	Glu	Pro	Lys	Glu	Cys	Thr	Tyr	Thr	
				9770					9775					9780	
att	ccc	aaa	ttg	cta	gaa	ggc	cat	gaa	tat	gta	ttc	cga	atc	atg	29517
Ile	Pro	Lys	Leu	Leu	Glu	Gly	His	Glu	Tyr	Val	Phe	Arg	Ile	Met	
				9785					9790					9795	
gcc	cag	aat	aaa	tat	ggc	att	gga	gaa	cct	ctt	gac	agt	gaa	cct	29562
Ala	Gln	Asn	Lys	Tyr	Gly	Ile	Gly	Glu	Pro	Leu	Asp	Ser	Glu	Pro	
				9800					9805					9810	
gaa	aca	gca	aga	aac	ctc	ttc	tct	gtc	cct	gga	gca	cca	gat	aaa	29607
Glu	Thr	Ala	Arg	Asn	Leu	Phe	Ser	Val	Pro	Gly	Ala	Pro	Asp	Lys	
				9815					9820					9825	
cca	aca	gtt	agc	agc	gtg	act	cgt	aac	tcc	atg	act	gtc	aac	tgg	29652
Pro	Thr	Val	Ser	Ser	Val	Thr	Arg	Asn	Ser	Met	Thr	Val	Asn	Trp	
				9830					9835					9840	

gaa gag cca gaa tat gat gga ggc tct cct gtg aca ggg tac tgg	29697
Glu Glu Pro Glu Tyr Asp Gly Gly Ser Pro Val Thr Gly Tyr Trp	
9845 9850 9855	
ctg gaa atg aaa gac acc act tca aag aga tgg aag aga gtt aac	29742
Leu Glu Met Lys Asp Thr Thr Ser Lys Arg Trp Lys Arg Val Asn	
9860 9865 9870	
cga gat cct atc aaa gcc atg act ttg ggt gtt tct tat aaa gtg	29787
Arg Asp Pro Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val	
9875 9880 9885	
act ggt ctt att gaa ggt tcc gac tat caa ttc cgg gta tat gca	29832
Thr Gly Leu Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala	
9890 9895 9900	
atc aat gct gct ggc gtg ggt cca gca agt ctg cca tca gac cca	29877
Ile Asn Ala Ala Glu Val Gly Pro Ala Ser Leu Pro Ser Asp Pro	
9905 9910 9915	
gcg act gct aga gat cca att gcc cct cct ggt cct cca ttt ccc	29922
Ala Thr Ala Arg Asp Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro	
9920 9925 9930	
aaa gtg aca gat tgg act aaa tca tct gca gat ctg gag tgg tct	29967
Lys Val Thr Asp Trp Thr Lys Ser Ser Ala Asp Leu Glu Trp Ser	
9935 9940 9945	
ccc cca cta aaa gat ggt gga tcc aaa gta act gga tac atc gtt	30012
Pro Pro Leu Lys Asp Gly Gly Ser Lys Val Thr Gly Tyr Ile Val	
9950 9955 9960	
gaa tat aaa gaa gaa gga aaa gaa gaa tgg gaa aag ggt aaa gat	30057
Glu Tyr Lys Glu Glu Gly Lys Glu Glu Trp Glu Lys Gly Lys Asp	
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Lys Glu Val Arg Gly Thr Lys Leu Val Val Thr Gly Leu Lys Glu	
9980 9985 9990	
gga gca ttc tac aaa ttt aga gtt agt gca gtc aac att gct ggc	30147
Gly Ala Phe Tyr Lys Phe Arg Val Ser Ala Val Asn Ile Ala Gly	
9995 10000 10005	
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Ile Gly Glu Pro Gly Glu Val Thr Asp Val Ile Glu Met Lys Asp	
10010 10015 10020	
aga ctt gtt tca cct gac ctt cag cta gat gcc agt gtc aga gat	30237
Arg Leu Val Ser Pro Asp Leu Gln Leu Asp Ala Ser Val Arg Asp	
10025 10030 10035	
aga att gtt gtc cat gct gga ggg gtg atc cga atc att gcc tat	30282
Arg Ile Val Val His Ala Gly Gly Val Ile Arg Ile Ile Ala Tyr	
10040 10045 10050	
gtg tct gga aag cct cct cca acc gtc acc tgg aac atg aat gaa	30327
Val Ser Gly Lys Pro Pro Pro Thr Val Thr Trp Asn Met Asn Glu	

10055					10060					10065					
aga acc tta cct caa	gaa gcc acc att gag	acc aca gcc att agc	30372												
Arg Thr Leu Pro Gln	Glu Ala Thr Ile Glu	Thr Thr Ala Ile Ser													
10070	10075	10080													
tca tcc atg gtc atc	aag aac tgc cag agg	agc cat caa ggc gtc	30417												
Ser Ser Met Val Ile	Lys Asn Cys Gln Arg	Ser His Gln Gly Val													
10085	10090	10095													
tat tct ctt ctt gcc	aaa aat gaa gcc gga	gaa aga aag aag aca	30462												
Tyr Ser Leu Leu Ala	Lys Asn Glu Ala Gly	Glu Arg Lys Lys Thr													
10100	10105	10110													
att att gtt gat gta	tta gat gtt cca ggt	ccc gtt gga aca cca	30507												
Ile Ile Val Asp Val	Leu Asp Val Pro Gly	Pro Val Gly Thr Pro													
10115	10120	10125													
ttc cta gct cac aac	cta acc aat gag tcc	tgc aaa ctg aca tgg	30552												
Phe Leu Ala His Asn	Leu Thr Asn Glu Ser	Cys Lys Leu Thr Trp													
10130	10135	10140													
ttt tct cca gaa gat	gat gga ggc tct cca	atc acc aat tat gtc	30597												
Phe Ser Pro Glu Asp	Asp Gly Gly Ser Pro	Ile Thr Asn Tyr Val													
10145	10150	10155													
att gaa aag cgt gaa	tct gac cgc aga gca	tgg acc cca gtg aca	30642												
Ile Glu Lys Arg Glu	Ser Asp Arg Arg Ala	Trp Thr Pro Val Thr													
10160	10165	10170													
tat aca gtt acc cga	caa aat gct act gtc	cag ggt ctg att caa	30687												
Tyr Thr Val Thr Arg	Gln Asn Ala Thr Val	Gln Gly Leu Ile Gln													
10175	10180	10185													
gga aaa gcc tac ttt	ttc cga att gcg gct	gaa aat agt att ggc	30732												
Gly Lys Ala Tyr Phe	Phe Arg Ile Ala Ala	Glu Asn Ser Ile Gly													
10190	10195	10200													
atg ggt cca ttt gtt	gag aca tca gag gca	ctt gtt atc aga gag	30777												
Met Gly Pro Phe Val	Glu Thr Ser Glu Ala	Leu Val Ile Arg Glu													
10205	10210	10215													
cca ata act gta cca	gag cgt cct gaa gac	ctg gaa gtc aaa gaa	30822												
Pro Ile Thr Val Pro	Glu Arg Pro Glu Asp	Leu Glu Val Lys Glu													
10220	10225	10230													
gtt act aaa aat act	gta act ttg act tgg	aat cct cct aag tat	30867												
Val Thr Lys Asn Thr	Val Thr Leu Thr Trp	Asn Pro Pro Lys Tyr													
10235	10240	10245													
gat ggt ggg tca gaa	att att aac tat gtc	cta gaa agt cgg ctg	30912												
Asp Gly Gly Ser Glu	Ile Ile Asn Tyr Val	Leu Glu Ser Arg Leu													
10250	10255	10260													
att ggg act gag aag	ttc cac aaa gtt aca	aat gac aac ttg ctt	30957												
Ile Gly Thr Glu Lys	Phe His Lys Val Thr	Asn Asp Asn Leu Leu													
10265	10270	10275													

agc aga aaa tac act	gtt aaa ggc tta aaa	gaa ggt gat acc tat	31002
Ser Arg Lys Tyr Thr	Val Lys Gly Leu Lys	Glu Gly Asp Thr Tyr	
10280	10285	10290	
gag tac cgt gtc agt	gct gtc aac att gtt	gga caa ggc aaa cca	31047
Glu Tyr Arg Val Ser	Ala Val Asn Ile Val	Gly Gln Gly Lys Pro	
10295	10300	10305	
tca ttt tgc acc aaa	cca att act tgc aag	gat gag ctg gca ccc	31092
Ser Phe Cys Thr Lys	Pro Ile Thr Cys Lys	Asp Glu Leu Ala Pro	
10310	10315	10320	
cca acg ctt cac ctc	gac ttc aga gat aag	ctc acg att cga gtt	31137
Pro Thr Leu His Leu	Asp Phe Arg Asp Lys	Leu Thr Ile Arg Val	
10325	10330	10335	
ggt gaa gct ttt gcc	ctc act ggc cgt tac	tca ggc aaa cca aag	31182
Gly Glu Ala Phe Ala	Leu Thr Gly Arg Tyr	Ser Gly Lys Pro Lys	
10340	10345	10350	
cct aag gtt tcc tgg	ttc aaa gat gaa gct	gat gtg ctg gaa gat	31227
Pro Lys Val Ser Trp	Phe Lys Asp Glu Ala	Asp Val Leu Glu Asp	
10355	10360	10365	
gat cgc act cat ata	aag act aca cca gca	aca ctt gct tta gag	31272
Asp Arg Thr His Ile	Lys Thr Thr Pro Ala	Thr Leu Ala Leu Glu	
10370	10375	10380	
aag atc aag gcc aaa	cgt tca gat tcc ggc	aaa tac tgt gtg gtt	31317
Lys Ile Lys Ala Lys	Arg Ser Asp Ser Gly	Lys Tyr Cys Val Val	
10385	10390	10395	
gtg gag aac agt aca	ggc tct agg aaa ggt	ttc tgt caa gtt aat	31362
Val Glu Asn Ser Thr	Gly Ser Arg Lys Gly	Phe Cys Gln Val Asn	
10400	10405	10410	
gtt gtt gac cat cct	gga cca cca gta gga	cca gtt agt ttt gat	31407
Val Val Asp His Pro	Gly Pro Pro Val Gly	Pro Val Ser Phe Asp	
10415	10420	10425	
gag gtg acc aaa gat	tac atg gtt atc tct	tgg aag cct cct tta	31452
Glu Val Thr Lys Asp	Tyr Met Val Ile Ser	Trp Lys Pro Pro Leu	
10430	10435	10440	
gat gat gga ggc agt	aaa atc acc aat tat	att att gag aag aag	31497
Asp Asp Gly Gly Ser	Lys Ile Thr Asn Tyr	Ile Ile Glu Lys Lys	
10445	10450	10455	
gaa gtg ggt aaa gac	gtc tgg atg cca gtg	aca tct gca agt gct	31542
Glu Val Gly Lys Asp	Val Trp Met Pro Val	Thr Ser Ala Ser Ala	
10460	10465	10470	
aaa aca aca tgc aaa	gtt tct aaa cta ctt	gaa gga aaa gat tat	31587
Lys Thr Thr Cys Lys	Val Ser Lys Leu Leu	Glu Gly Lys Asp Tyr	
10475	10480	10485	
att ttc cgg ata cat	gct gaa aat ctg tat	gga ata agt gat cct	31632
Ile Phe Arg Ile His	Ala Glu Asn Leu Tyr	Gly Ile Ser Asp Pro	

10490					10495					10500					
ctg	gtg	tct	gat	tca	atg	aaa	gcc	aaa	gat	cgt	ttc	agg	gtt	cct	31677
Leu	Val	Ser	Asp	Ser	Met	Lys	Ala	Lys	Asp	Arg	Phe	Arg	Val	Pro	
				10505					10510					10515	
gat	gca	cct	gat	cag	cca	att	gtt	aca	gaa	gtt	acc	aaa	gac	tct	31722
Asp	Ala	Pro	Asp	Gln	Pro	Ile	Val	Thr	Glu	Val	Thr	Lys	Asp	Ser	
				10520					10525					10530	
gca	tta	gta	acc	tgg	aat	aag	cca	cat	gat	gga	gga	aaa	ccc	atc	31767
Ala	Leu	Val	Thr	Trp	Asn	Lys	Pro	His	Asp	Gly	Gly	Lys	Pro	Ile	
				10535					10540					10545	
aca	aac	tac	atc	ctg	gaa	aag	aga	gaa	act	atg	tct	aaa	cga	tgg	31812
Thr	Asn	Tyr	Ile	Leu	Glu	Lys	Arg	Glu	Thr	Met	Ser	Lys	Arg	Trp	
				10550					10555					10560	
gct	aga	gtt	acc	aaa	gat	cct	att	cat	cca	tac	act	aaa	ttt	agg	31857
Ala	Arg	Val	Thr	Lys	Asp	Pro	Ile	His	Pro	Tyr	Thr	Lys	Phe	Arg	
				10565					10570					10575	
gtt	cct	gat	ctt	cta	gaa	gga	tgt	cag	tat	gaa	ttc	cgg	gtt	tct	31902
Val	Pro	Asp	Leu	Leu	Glu	Gly	Cys	Gln	Tyr	Glu	Phe	Arg	Val	Ser	
				10580					10585					10590	
gca	gaa	aat	gaa	att	ggt	att	gga	gat	cca	agc	cca	cca	tcc	aaa	31947
Ala	Glu	Asn	Glu	Ile	Gly	Ile	Gly	Asp	Pro	Ser	Pro	Pro	Ser	Lys	
				10595					10600					10605	
cca	gtc	ttt	gct	aaa	gat	cca	att	gct	aaa	cca	agt	cca	cct	gtt	31992
Pro	Val	Phe	Ala	Lys	Asp	Pro	Ile	Ala	Lys	Pro	Ser	Pro	Pro	Val	
				10610					10615					10620	
aat	cct	gaa	gca	ata	gat	aca	aca	tgc	aat	tca	gtc	gat	cta	act	32037
Asn	Pro	Glu	Ala	Ile	Asp	Thr	Thr	Cys	Asn	Ser	Val	Asp	Leu	Thr	
				10625					10630					10635	
tgg	cag	cca	cca	cgt	cat	gat	ggt	ggg	agc	aag	att	ctg	ggt	tat	32082
Trp	Gln	Pro	Pro	Arg	His	Asp	Gly	Gly	Ser	Lys	Ile	Leu	Gly	Tyr	
				10640					10645					10650	
att	gtt	gag	tac	cag	aaa	gtt	gga	gat	gaa	gag	tgg	aga	aga	gcc	32127
Ile	Val	Glu	Tyr	Gln	Lys	Val	Gly	Asp	Glu	Glu	Trp	Arg	Arg	Ala	
				10655					10660					10665	
aat	cac	acc	cct	gag	tca	tgt	cct	gaa	act	aaa	tat	aaa	gtc	acc	32172
Asn	His	Thr	Pro	Glu	Ser	Cys	Pro	Glu	Thr	Lys	Tyr	Lys	Val	Thr	
				10670					10675					10680	
ggt	ctt	cgg	gac	ggt	caa	acc	tat	aag	ttt	aga	gtg	tta	gca	gtc	32217
Gly	Leu	Arg	Asp	Gly	Gln	Thr	Tyr	Lys	Phe	Arg	Val	Leu	Ala	Val	
				10685					10690					10695	
aat	gca	gct	ggt	gaa	tca	gat	cca	gct	cat	gtt	ccg	gag	cca	gtc	32262
Asn	Ala	Ala	Gly	Glu	Ser	Asp	Pro	Ala	His	Val	Pro	Glu	Pro	Val	
				10700					10705					10710	

cta gta aaa gac agg	ctt gaa ccc cct gag	ttg att ctt gat gcc	32307
Leu Val Lys Asp Arg	Leu Glu Pro Pro Glu	Leu Ile Leu Asp Ala	
10715	10720	10725	
aac atg gca aga gaa	caa cac att aaa gtt	ggg gat act cta aga	32352
Asn Met Ala Arg Glu	Gln His Ile Lys Val	Gly Asp Thr Leu Arg	
10730	10735	10740	
ctt agt gcc atc atc	aaa gga gtg cca ttc	cca aaa gta act tgg	32397
Leu Ser Ala Ile Ile	Lys Gly Val Pro Phe	Pro Lys Val Thr Trp	
10745	10750	10755	
aaa aaa gaa gac aga	gat gct cca act aaa	gca aga att gat gtg	32442
Lys Lys Glu Asp Arg	Asp Ala Pro Thr Lys	Ala Arg Ile Asp Val	
10760	10765	10770	
act cca gtt ggt agc	aag ctt gaa att cgt	aat gct gcc cat gaa	32487
Thr Pro Val Gly Ser	Lys Leu Glu Ile Arg	Asn Ala Ala His Glu	
10775	10780	10785	
gat ggt gga att tat	tct tta aca gtg gag	aat cca gct ggt tca	32532
Asp Gly Gly Ile Tyr	Ser Leu Thr Val Glu	Asn Pro Ala Gly Ser	
10790	10795	10800	
aaa act gtc tca gta	aaa gta ctt gta tta	gat aaa cct ggg cca	32577
Lys Thr Val Ser Val	Lys Val Leu Val Leu	Asp Lys Pro Gly Pro	
10805	10810	10815	
cct aga gat ctg gaa	gtc agt gaa att agg	aaa gat tca tgt tac	32622
Pro Arg Asp Leu Glu	Val Ser Glu Ile Arg	Lys Asp Ser Cys Tyr	
10820	10825	10830	
ctt act tgg aaa gaa	cca cta gat gat ggt	ggg tct gtt att acc	32667
Leu Thr Trp Lys Glu	Pro Leu Asp Asp Gly	Gly Ser Val Ile Thr	
10835	10840	10845	
aat tat gtg gtt gag	agg aga gat gtt gcc	agc gcc cag tgg tca	32712
Asn Tyr Val Val Glu	Arg Arg Asp Val Ala	Ser Ala Gln Trp Ser	
10850	10855	10860	
cct ctc tca gct aca	tca aag aaa aag agt	cac ttc gct aag cat	32757
Pro Leu Ser Ala Thr	Ser Lys Lys Lys Ser	His Phe Ala Lys His	
10865	10870	10875	
ctg aat gaa ggc aac	cag tac ctc ttc cga	gta gct gcg gag aac	32802
Leu Asn Glu Gly Asn	Gln Tyr Leu Phe Arg	Val Ala Ala Glu Asn	
10880	10885	10890	
cag tat gga cgt ggt	cct ttt gtt gaa aca	cca aaa cca atc aag	32847
Gln Tyr Gly Arg Gly	Pro Phe Val Glu Thr	Pro Lys Pro Ile Lys	
10895	10900	10905	
gct ttg gat cct ctc	cat ccc cca ggg cca	ccc aag gac ctg cac	32892
Ala Leu Asp Pro Leu	His Pro Pro Gly Pro	Pro Lys Asp Leu His	
10910	10915	10920	
cat gta gat gtt gac	aag act gaa gtc tcc	cta gtc tgg aat aag	32937
His Val Asp Val Asp	Lys Thr Glu Val Ser	Leu Val Trp Asn Lys	

10925					10930					10935					
ccg	gat	cgt	gat	ggt	ggt	tct	cca	atc	act	gga	tat	ttg	gta	gaa	32982
Pro	Asp	Arg	Asp	Gly	Gly	Ser	Pro	Ile	Thr	Gly	Tyr	Leu	Val	Glu	
				10940					10945					10950	
tat	caa	gaa	gaa	ggc	acc	cag	gac	tgg	att	aaa	ttt	aag	act	gtg	33027
Tyr	Gln	Glu	Glu	Gly	Thr	Gln	Asp	Trp	Ile	Lys	Phe	Lys	Thr	Val	
				10955					10960					10965	
aca	aac	tta	gag	tgt	gtg	gtt	act	gga	cta	caa	caa	gga	aag	acc	33072
Thr	Asn	Leu	Glu	Cys	Val	Val	Thr	Gly	Leu	Gln	Gln	Gly	Lys	Thr	
				10970					10975					10980	
tat	aga	ttc	cgt	gta	aaa	gct	gaa	aac	att	gtg	ggt	ctt	ggt	ctc	33117
Tyr	Arg	Phe	Arg	Val	Lys	Ala	Glu	Asn	Ile	Val	Gly	Leu	Gly	Leu	
				10985					10990					10995	
cct	gac	aca	act	atc	ccg	ata	gaa	tgt	caa	gaa	aaa	cta	gtg	cct	33162
Pro	Asp	Thr	Thr	Ile	Pro	Ile	Glu	Cys	Gln	Glu	Lys	Leu	Val	Pro	
				11000					11005					11010	
cca	tcc	gtg	gag	cta	gat	gtg	aaa	tta	att	gaa	ggt	ctt	gtg	gta	33207
Pro	Ser	Val	Glu	Leu	Asp	Val	Lys	Leu	Ile	Glu	Gly	Leu	Val	Val	
				11015					11020					11025	
aag	gct	gga	acc	aca	gtc	aga	ttc	cct	gct	att	ata	aga	ggt	gtg	33252
Lys	Ala	Gly	Thr	Thr	Val	Arg	Phe	Pro	Ala	Ile	Ile	Arg	Gly	Val	
				11030					11035					11040	
cct	gtt	cct	act	gca	aag	tgg	aca	acc	gat	ggg	agt	gag	att	aaa	33297
Pro	Val	Pro	Thr	Ala	Lys	Trp	Thr	Thr	Asp	Gly	Ser	Glu	Ile	Lys	
				11045					11050					11055	
acc	gat	gag	cac	tac	aca	gtt	gaa	aca	gac	aac	ttc	tca	tca	gta	33342
Thr	Asp	Glu	His	Tyr	Thr	Val	Glu	Thr	Asp	Asn	Phe	Ser	Ser	Val	
				11060					11065					11070	
ctt	acc	att	aag	aac	tgc	tta	agg	aga	gac	act	ggg	gaa	tat	caa	33387
Leu	Thr	Ile	Lys	Asn	Cys	Leu	Arg	Arg	Asp	Thr	Gly	Glu	Tyr	Gln	
				11075					11080					11085	
atc	aca	gtt	tcc	aat	gca	gcc	ggt	agc	aaa	aca	gta	gcc	gta	cat	33432
Ile	Thr	Val	Ser	Asn	Ala	Ala	Gly	Ser	Lys	Thr	Val	Ala	Val	His	
				11090					11095					11100	
ctt	act	gtt	ctt	gat	gtt	cct	ggg	cca	cca	aca	ggt	cct	att	aat	33477
Leu	Thr	Val	Leu	Asp	Val	Pro	Gly	Pro	Pro	Thr	Gly	Pro	Ile	Asn	
				11105					11110					11115	
att	ctg	gat	gtt	act	cct	gaa	cac	atg	act	atc	tca	tgg	cag	cca	33522
Ile	Leu	Asp	Val	Thr	Pro	Glu	His	Met	Thr	Ile	Ser	Trp	Gln	Pro	
				11120					11125					11130	
cct	aag	gat	gat	gga	gga	agc	cct	gtg	ata	aat	tat	att	gtt	gag	33567
Pro	Lys	Asp	Asp	Gly	Gly	Ser	Pro	Val	Ile	Asn	Tyr	Ile	Val	Glu	
				11135					11140					11145	

aaa caa gat aca agg Lys Gln Asp Thr Arg 11150	aaa gac acg tgg ggt Lys Asp Thr Trp Gly 11155	ggt gtc tct tcc gga Val Val Ser Ser Gly 11160	33612
agc agt aag aca aag Ser Ser Lys Thr Lys 11165	ctg aaa atc cca cat Leu Lys Ile Pro His 11170	ctg cag aag ggc tgt Leu Gln Lys Gly Cys 11175	33657
gaa tat gtt ttc cga Glu Tyr Val Phe Arg 11180	ggt aga gca gag aat Val Arg Ala Glu Asn 11185	aag ata ggt gtt ggt Lys Ile Gly Val Gly 11190	33702
cct ccc ctt gac tcc Pro Pro Leu Asp Ser 11195	aca cct act gtt gct Thr Pro Thr Val Ala 11200	aag cat aaa ttt agt Lys His Lys Phe Ser 11205	33747
cct ccg tct cct cct Pro Pro Ser Pro Pro 11210	ggt aaa cca gtg gtt Gly Lys Pro Val Val 11215	act gac att act gaa Thr Asp Ile Thr Glu 11220	33792
aat gca gca aca gtg Asn Ala Ala Thr Val 11225	tct tgg acc ctg cca Ser Trp Thr Leu Pro 11230	aaa tct gat ggt ggc Lys Ser Asp Gly Gly 11235	33837
agt cca ata act ggc Ser Pro Ile Thr Gly 11240	tac tat atg gaa cgt Tyr Tyr Met Glu Arg 11245	cga gaa gta act ggc Arg Glu Val Thr Gly 11250	33882
aaa tgg gtg agg gtc Lys Trp Val Arg Val 11255	aac aaa aca cct atc Asn Lys Thr Pro Ile 11260	gct gac ctg aag ttc Ala Asp Leu Lys Phe 11265	33927
aga gtg act gga ctc Arg Val Thr Gly Leu 11270	tat gaa gga aat aca Tyr Glu Gly Asn Thr 11275	tat gag ttt aga gtt Tyr Glu Phe Arg Val 11280	33972
ttt gct gaa aat ctt Phe Ala Glu Asn Leu 11285	gca gga cta agc aaa Ala Gly Leu Ser Lys 11290	cca tcc cca agt tct Pro Ser Pro Ser Ser 11295	34017
gat cca ata aaa gct Asp Pro Ile Lys Ala 11300	tgc cgg ccc atc aaa Cys Arg Pro Ile Lys 11305	cca cct gga cca cct Pro Pro Gly Pro Pro 11310	34062
att aat cct aaa ctg Ile Asn Pro Lys Leu 11315	aaa gac aag agc aga Lys Asp Lys Ser Arg 11320	gaa aca gct gat ttg Glu Thr Ala Asp Leu 11325	34107
gtg tgg aca aag cct Val Trp Thr Lys Pro 11330	ctc agt gat ggt ggt Leu Ser Asp Gly Gly 11335	agc ccc att cta gga Ser Pro Ile Leu Gly 11340	34152
tat gta gtg gaa tgt Tyr Val Val Glu Cys 11345	cag aaa cct ggc acg Gln Lys Pro Gly Thr 11350	gca caa tgg aac agg Ala Gln Trp Asn Arg 11355	34197
att aat aaa gat gaa Ile Asn Lys Asp Glu	ctc att agg caa tgt Leu Ile Arg Gln Cys	gcc ttt agg gta cct Ala Phe Arg Val Pro	34242

gga cta att gaa gga	aat gag tac aga ttc	cgt ata aag gca gct	34287
Gly Leu Ile Glu Gly	Asn Glu Tyr Arg Phe	Arg Ile Lys Ala Ala	
11375	11380	11385	
aat att gta gga gag	ggt gag cca aga gaa	cta gca gaa tct gtg	34332
Asn Ile Val Gly Glu	Gly Glu Pro Arg Glu	Leu Ala Glu Ser Val	
11390	11395	11400	
att gca aaa gat atc	ctt cat cct cca gaa	gta gaa ctt gat gtt	34377
Ile Ala Lys Asp Ile	Leu His Pro Pro Glu	Val Glu Leu Asp Val	
11405	11410	11415	
act tgt cgt gat gtt	att acc gtg aga gta	ggc caa act atc cgc	34422
Thr Cys Arg Asp Val	Ile Thr Val Arg Val	Gly Gln Thr Ile Arg	
11420	11425	11430	
att cta gct cga gtc	aaa ggc aga cct gaa	cca gac ata act tgg	34467
Ile Leu Ala Arg Val	Lys Gly Arg Pro Glu	Pro Asp Ile Thr Trp	
11435	11440	11445	
act aag gaa ggc aaa	gta ttg gtc cga gaa	aag agg gtg gac ctt	34512
Thr Lys Glu Gly Lys	Val Leu Val Arg Glu	Lys Arg Val Asp Leu	
11450	11455	11460	
att cag gat cta cct	cgt gtt gag tta caa	att aaa gaa gct gtt	34557
Ile Gln Asp Leu Pro	Arg Val Glu Leu Gln	Ile Lys Glu Ala Val	
11465	11470	11475	
aga gct gat cat ggc	aag tat atc atc tca	gct aag aac agc agt	34602
Arg Ala Asp His Gly	Lys Tyr Ile Ile Ser	Ala Lys Asn Ser Ser	
11480	11485	11490	
gga cat gcc caa ggt	tca gcc atc gtt aac	gtc ctt gac aga cct	34647
Gly His Ala Gln Gly	Ser Ala Ile Val Asn	Val Leu Asp Arg Pro	
11495	11500	11505	
ggg cct tgc cag aat	ttg aag gtt acc aat	gta acc aaa gag aac	34692
Gly Pro Cys Gln Asn	Leu Lys Val Thr Asn	Val Thr Lys Glu Asn	
11510	11515	11520	
tgt aca att tct tgg	gaa aac cca cta gat	aat ggt ggc tca gaa	34737
Cys Thr Ile Ser Trp	Glu Asn Pro Leu Asp	Asn Gly Gly Ser Glu	
11525	11530	11535	
ata aca aac ttc ata	gta gaa tat cgc aaa	cca aac cag aaa ggc	34782
Ile Thr Asn Phe Ile	Val Glu Tyr Arg Lys	Pro Asn Gln Lys Gly	
11540	11545	11550	
tgg tca att gtt gca	tca gat gtc act aaa	cga tta atc aag gcc	34827
Trp Ser Ile Val Ala	Ser Asp Val Thr Lys	Arg Leu Ile Lys Ala	
11555	11560	11565	
aac ctt tta gcc aac	aat gaa tac tat ttc	cga gtt tgt gca gag	34872
Asn Leu Leu Ala Asn	Asn Glu Tyr Tyr Phe	Arg Val Cys Ala Glu	
11570	11575	11580	

aat aaa gta ggt gtt	ggg cca acc atc gaa	aca aaa act ccc att	34917
Asn Lys Val Gly Val	Gly Pro Thr Ile Glu	Thr Lys Thr Pro Ile	
11585	11590	11595	
ctg gct att aac cct	att gac aga cca ggt	gag cct gaa aac ctt	34962
Leu Ala Ile Asn Pro	Ile Asp Arg Pro Gly	Glu Pro Glu Asn Leu	
11600	11605	11610	
cac att gca gat aaa	gga aag aca ttt gtc	tac cta aag tgg cgg	35007
His Ile Ala Asp Lys	Gly Lys Thr Phe Val	Tyr Leu Lys Trp Arg	
11615	11620	11625	
agg cct gac tat gat	ggg ggc agt cca aat	ctg tca tat cat gtt	35052
Arg Pro Asp Tyr Asp	Gly Gly Ser Pro Asn	Leu Ser Tyr His Val	
11630	11635	11640	
gag aga agg ctt aag	ggc tcc gat gac tgg	gaa aga gtg cat aaa	35097
Glu Arg Arg Leu Lys	Gly Ser Asp Asp Trp	Glu Arg Val His Lys	
11645	11650	11655	
gga agc att aaa gaa	act cac tac atg gtt	gac aga tgt gtt gaa	35142
Gly Ser Ile Lys Glu	Thr His Tyr Met Val	Asp Arg Cys Val Glu	
11660	11665	11670	
aac cag att tat gag	ttc aga gtg cca aca	aag aat gaa ggt ggg	35187
Asn Gln Ile Tyr Glu	Phe Arg Val Gln Thr	Lys Asn Glu Gly Gly	
11675	11680	11685	
gaa agt gac tgg gtg	aag aca gag gaa gtt	gtt gtg aaa gaa gac	35232
Glu Ser Asp Trp Val	Lys Thr Glu Glu Val	Val Val Lys Glu Asp	
11690	11695	11700	
tta caa aaa cca gta	ctt gat ctg aaa tta	agt ggg gtc cta act	35277
Leu Gln Lys Pro Val	Leu Asp Leu Lys Leu	Ser Gly Val Leu Thr	
11705	11710	11715	
gtc aaa gca ggg gac	acc att agg ctt gag	gca ggg gtt aga ggc	35322
Val Lys Ala Gly Asp	Thr Ile Arg Leu Glu	Ala Gly Val Arg Gly	
11720	11725	11730	
aaa cca ttc cca gaa	gtt gca tgg acc aag	gac aaa gac gct aca	35367
Lys Pro Phe Pro Glu	Val Ala Trp Thr Lys	Asp Lys Asp Ala Thr	
11735	11740	11745	
gac tta aca aga tca	cca agg gtc aag att	gat acc cgt gct gat	35412
Asp Leu Thr Arg Ser	Pro Arg Val Lys Ile	Asp Thr Arg Ala Asp	
11750	11755	11760	
tca tct aaa ttt tct	ctt act aaa gca aag	cga agt gat ggg ggt	35457
Ser Ser Lys Phe Ser	Leu Thr Lys Ala Lys	Arg Ser Asp Gly Gly	
11765	11770	11775	
aaa tat gta gtt acg	gca act aac acg gct	ggc agt ttt gtg gcc	35502
Lys Tyr Val Val Thr	Ala Thr Asn Thr Ala	Gly Ser Phe Val Ala	
11780	11785	11790	
tat gcc act gtc aat	gtt tta gat aag cct	ggg cct gtg aga aat	35547
Tyr Ala Thr Val Asn	Val Leu Asp Lys Pro	Gly Pro Val Arg Asn	

11795	11800	11805	
ctg aaa att gtt gat	gtg tcc agt gat agg	tgt act gtt tgc tgg	35592
Leu Lys Ile Val Asp	Val Ser Ser Asp Arg	Cys Thr Val Cys Trp	
11810	11815	11820	
gat cca cca gaa gat	gat ggt ggc tgt gaa	atc caa aat tat att	35637
Asp Pro Pro Glu Asp	Asp Gly Gly Cys Glu	Ile Gln Asn Tyr Ile	
11825	11830	11835	
cta gaa aaa tgt gag	aca aag cga atg gtt	tgg tct acc tat tct	35682
Leu Glu Lys Cys Glu	Thr Lys Arg Met Val	Trp Ser Thr Tyr Ser	
11840	11845	11850	
gct act gtc ttg aca	cct ggt act aca gta	aca cgt ctc ata gaa	35727
Ala Thr Val Leu Thr	Pro Gly Thr Thr Val	Thr Arg Leu Ile Glu	
11855	11860	11865	
gga aat gaa tat att	ttc aga gtc cgt gca	gaa aat aaa ata ggc	35772
Gly Asn Glu Tyr Ile	Phe Arg Val Arg Ala	Glu Asn Lys Ile Gly	
11870	11875	11880	
aca ggg cct cca aca	gaa agt aaa cca gtc	ata gcc aaa acc aag	35817
Thr Gly Pro Pro Thr	Glu Ser Lys Pro Val	Ile Ala Lys Thr Lys	
11885	11890	11895	
tat gat aaa cct ggt	cgc cct gat ccc cca	gaa gtc act aaa gta	35862
Tyr Asp Lys Pro Gly	Arg Pro Asp Pro Pro	Glu Val Thr Lys Val	
11900	11905	11910	
agc aaa gaa gag atg	act gtg gtt tgg aat	cca cct gaa tat gat	35907
Ser Lys Glu Glu Met	Thr Val Val Trp Asn	Pro Pro Glu Tyr Asp	
11915	11920	11925	
ggt gga aag tct ata	act gga tac ttt ttg	gag aaa aag gaa aag	35952
Gly Gly Lys Ser Ile	Thr Gly Tyr Phe Leu	Glu Lys Lys Glu Lys	
11930	11935	11940	
cat tca aca cga tgg	gtc cct gtc aac aag	agt gca atc cct gag	35997
His Ser Thr Arg Trp	Val Pro Val Asn Lys	Ser Ala Ile Pro Glu	
11945	11950	11955	
aga cgt atg aaa gta	cag aat ctc ctc cca	gac cat gaa tat cag	36042
Arg Arg Met Lys Val	Gln Asn Leu Leu Pro	Asp His Glu Tyr Gln	
11960	11965	11970	
ttc cgt gtc aag gca	gaa aat gaa att gga	att gga gaa cca agc	36087
Phe Arg Val Lys Ala	Glu Asn Glu Ile Gly	Ile Gly Glu Pro Ser	
11975	11980	11985	
ttg cct tca aga ccg	gtg gtg gca aaa gac	ccc ata gag cca cct	36132
Leu Pro Ser Arg Pro	Val Val Ala Lys Asp	Pro Ile Glu Pro Pro	
11990	11995	12000	
ggt cca cca acc aat	ttc aga gtg gtt gat	aca acc aaa cat tcc	36177
Gly Pro Pro Thr Asn	Phe Arg Val Val Asp	Thr Thr Lys His Ser	
12005	12010	12015	

ata act ctt ggg tgg	gga aaa cca gtc tat	gat ggt ggt gca ccg	36222
Ile Thr Leu Gly Trp	Gly Lys Pro Val Tyr	Asp Gly Gly Ala Pro	
12020	12025	12030	
atc att gga tat gtt	gtg gaa atg aga cca	aaa ata gca gat gcg	36267
Ile Ile Gly Tyr Val	Val Glu Met Arg Pro	Lys Ile Ala Asp Ala	
12035	12040	12045	
tct cct gat gaa ggc	tgg aaa cgg tgt aat	gct gca gca cag ctt	36312
Ser Pro Asp Glu Gly	Trp Lys Arg Cys Asn	Ala Ala Ala Gln Leu	
12050	12055	12060	
gta cgc aag gaa ttc	act gtt acc agc ttg	gat gaa aac cag gaa	36357
Val Arg Lys Glu Phe	Thr Val Thr Ser Leu	Asp Glu Asn Gln Glu	
12065	12070	12075	
tat gag ttc agg gtg	tgt gcc caa aac caa	gtt ggt att ggg cgc	36402
Tyr Glu Phe Arg Val	Cys Ala Gln Asn Gln	Val Gly Ile Gly Arg	
12080	12085	12090	
cct gca gag cta aag	gaa gct atc aaa cct	aaa gaa ata cta gaa	36447
Pro Ala Glu Leu Lys	Glu Ala Ile Lys Pro	Lys Glu Ile Leu Glu	
12095	12100	12105	
cct ccg gag att gat	ttg gat gcc agc atg	agg aaa ctg gtc ata	36492
Pro Pro Glu Ile Asp	Leu Asp Ala Ser Met	Arg Lys Leu Val Ile	
12110	12115	12120	
gtg aga gca gga tgc	cct att cgt ctg ttt	gct ata gtg aga gga	36537
Val Arg Ala Gly Cys	Pro Ile Arg Leu Phe	Ala Ile Val Arg Gly	
12125	12130	12135	
cga cca gcc cct aaa	gtc act tgg cga aaa	gtt ggc att gat aat	36582
Arg Pro Ala Pro Lys	Val Thr Trp Arg Lys	Val Gly Ile Asp Asn	
12140	12145	12150	
gtg gtc aga aaa gga	caa gtt gat ctg gtt	gac act atg gcc ttc	36627
Val Val Arg Lys Gly	Gln Val Asp Leu Val	Asp Thr Met Ala Phe	
12155	12160	12165	
ctt gtc atc ccc aat	tct acc cgt gat gac	tca gga aaa tat tcc	36672
Leu Val Ile Pro Asn	Ser Thr Arg Asp Asp	Ser Gly Lys Tyr Ser	
12170	12175	12180	
tta aca ctt gtg aac	cca gca gga gaa aag	gct gta ttc gta aat	36717
Leu Thr Leu Val Asn	Pro Ala Gly Glu Lys	Ala Val Phe Val Asn	
12185	12190	12195	
gtc aga gta tta gac	act cct ggg cct gtg	tct gat tta aaa gtt	36762
Val Arg Val Leu Asp	Thr Pro Gly Pro Val	Ser Asp Leu Lys Val	
12200	12205	12210	
tca gat gtc act aaa	aca tca tgc cat gtg	tcc tgg gcc cct cct	36807
Ser Asp Val Thr Lys	Thr Ser Cys His Val	Ser Trp Ala Pro Pro	
12215	12220	12225	
gaa aac gac ggt ggg	agc caa gtg aca cat	tat atc gtg gag aaa	36852
Glu Asn Asp Gly Gly	Ser Gln Val Thr His	Tyr Ile Val Glu Lys	

12230					12235					12240					
cgt	gag	gca	gac	aga	aag	aca	tgg	tcg	acc	gtt	acc	cca	gaa	gtt	36897
Arg	Glu	Ala	Asp	Arg	Lys	Thr	Trp	Ser	Thr	Val	Thr	Pro	Glu	Val	
				12245					12250					12255	
aag	aaa	aca	agc	ttc	cat	gta	acc	aat	ctt	gtc	cct	ggg	aat	gag	36942
Lys	Lys	Thr	Ser	Phe	His	Val	Thr	Asn	Leu	Val	Pro	Gly	Asn	Glu	
				12260					12265					12270	
tat	tac	ttc	aga	gta	act	gct	gtc	aac	gaa	tat	ggc	cct	ggc	gtc	36987
Tyr	Tyr	Phe	Arg	Val	Thr	Ala	Val	Asn	Glu	Tyr	Gly	Pro	Gly	Val	
				12275					12280					12285	
cca	aca	gat	gtc	cca	aaa	cca	gtg	ctt	gca	tca	gat	cct	cta	agt	37032
Pro	Thr	Asp	Val	Pro	Lys	Pro	Val	Leu	Ala	Ser	Asp	Pro	Leu	Ser	
				12290					12295					12300	
gag	ccg	gat	ccc	cca	agg	aaa	tta	gaa	gcg	act	gaa	atg	acc	aag	37077
Glu	Pro	Asp	Pro	Pro	Arg	Lys	Leu	Glu	Ala	Thr	Glu	Met	Thr	Lys	
				12305					12310					12315	
aac	agt	gcc	acc	tta	gcc	tgg	tta	cct	ccc	cta	cgt	gat	gga	ggg	37122
Asn	Ser	Ala	Thr	Leu	Ala	Trp	Leu	Pro	Pro	Leu	Arg	Asp	Gly	Gly	
				12320					12325					12330	
gct	aaa	atc	gat	ggc	tac	atc	att	agt	tac	aga	gaa	gaa	gag	cag	37167
Ala	Lys	Ile	Asp	Gly	Tyr	Ile	Ile	Ser	Tyr	Arg	Glu	Glu	Glu	Gln	
				12335					12340					12345	
cct	gca	gat	cgc	tgg	aca	gag	tac	tca	gtg	gta	aaa	gat	ctg	agc	37212
Pro	Ala	Asp	Arg	Trp	Thr	Glu	Tyr	Ser	Val	Val	Lys	Asp	Leu	Ser	
				12350					12355					12360	
ctt	gtt	gtc	act	ggc	cta	aag	gaa	gga	aag	aaa	tac	aaa	ttt	aga	37257
Leu	Val	Val	Thr	Gly	Leu	Lys	Glu	Gly	Lys	Lys	Tyr	Lys	Phe	Arg	
				12365					12370					12375	
gta	gcg	gcc	aga	aat	gct	gtt	gga	gtc	agt	ttg	cca	aga	gaa	gct	37302
Val	Ala	Ala	Arg	Asn	Ala	Val	Gly	Val	Ser	Leu	Pro	Arg	Glu	Ala	
				12380					12385					12390	
gaa	gga	gtg	tat	gaa	gcc	aaa	gag	caa	ctg	ttg	cca	cca	aag	atc	37347
Glu	Gly	Val	Tyr	Glu	Ala	Lys	Glu	Gln	Leu	Leu	Pro	Pro	Lys	Ile	
				12395					12400					12405	
ctt	atg	cca	gag	caa	ata	act	atc	aaa	gct	ggg	aaa	aaa	ctc	cga	37392
Leu	Met	Pro	Glu	Gln	Ile	Thr	Ile	Lys	Ala	Gly	Lys	Lys	Leu	Arg	
				12410					12415					12420	
att	gaa	gcc	cat	gtg	tat	gga	aag	cct	cat	ccc	acc	tgt	aaa	tgg	37437
Ile	Glu	Ala	His	Val	Tyr	Gly	Lys	Pro	His	Pro	Thr	Cys	Lys	Trp	
				12425					12430					12435	
aaa	aaa	gga	gaa	gat	gaa	gtt	gtc	aca	tcc	agc	cac	ctg	gca	gtg	37482
Lys	Lys	Gly	Glu	Asp	Glu	Val	Val	Thr	Ser	Ser	His	Leu	Ala	Val	
				12440					12445					12450	

cat aaa gca gac agc	tct tca att ctg atc	ata aaa gat gtg act	37527
His Lys Ala Asp Ser	Ser Ser Ile Leu Ile	Ile Lys Asp Val Thr	
12455	12460	12465	
agg aaa gac agt ggt	tac tac agc ctc aca	gca gag aac agt tct	37572
Arg Lys Asp Ser Gly	Tyr Tyr Ser Leu Thr	Ala Glu Asn Ser Ser	
12470	12475	12480	
ggg aca gac act cag	aaa atc aaa gtt gta	gtc atg gat gcc ccc	37617
Gly Thr Asp Thr Gln	Lys Ile Lys Val Val	Val Met Asp Ala Pro	
12485	12490	12495	
ggc ccc cct cag cct	cca ttt gac att tct	gat ata gac gct gat	37662
Gly Pro Pro Gln Pro	Pro Phe Asp Ile Ser	Asp Ile Asp Ala Asp	
12500	12505	12510	
gct tgc tcc ctg tca	tgg cac atc cct ctg	gag gac gga ggc agt	37707
Ala Cys Ser Leu Ser	Trp His Ile Pro Leu	Glu Asp Gly Gly Ser	
12515	12520	12525	
aac atc acc aat tat	ata gtg gag aag tgt	gat gta agc cga ggt	37752
Asn Ile Thr Asn Tyr	Ile Val Glu Lys Cys	Asp Val Ser Arg Gly	
12530	12535	12540	
gac tgg gtc acg gct	cta gct tca gtc aca	aaa act tcc tgc agg	37797
Asp Trp Val Thr Ala	Leu Ala Ser Val Thr	Lys Thr Ser Cys Arg	
12545	12550	12555	
gtt gga aag ctg atc	cca ggc caa gag tac	atc ttc cgg gtc cgt	37842
Val Gly Lys Leu Ile	Pro Gly Gln Glu Tyr	Ile Phe Arg Val Arg	
12560	12565	12570	
gct gaa aac cga ttt	ggc att tca gag cct	ctc aca tct cca aag	37887
Ala Glu Asn Arg Phe	Gly Ile Ser Glu Pro	Leu Thr Ser Pro Lys	
12575	12580	12585	
atg gtt gcg cag ttc	cca ttt ggt gtt cct	agt gaa cca aag aat	37932
Met Val Ala Gln Phe	Pro Phe Gly Val Pro	Ser Glu Pro Lys Asn	
12590	12595	12600	
gca cga gtc acc aaa	gtc aac aag gac tgt	att ttt gtt gct tgg	37977
Ala Arg Val Thr Lys	Val Asn Lys Asp Cys	Ile Phe Val Ala Trp	
12605	12610	12615	
gac aga cca gat agt	gat gga ggg agc ccc	att att ggt tat ctg	38022
Asp Arg Pro Asp Ser	Asp Gly Gly Ser Pro	Ile Ile Gly Tyr Leu	
12620	12625	12630	
att gaa cgc aag gaa	aga aac agt ttg ctg	tgg gtg aaa gcc aat	38067
Ile Glu Arg Lys Glu	Arg Asn Ser Leu Leu	Trp Val Lys Ala Asn	
12635	12640	12645	
gat act ctt gtc cgg	tca act gaa tat cct	tgt gct ggc ctt gta	38112
Asp Thr Leu Val Arg	Ser Thr Glu Tyr Pro	Cys Ala Gly Leu Val	
12650	12655	12660	
gaa ggt ctt gag tat	tca ttc aga atc tat	gcc cta aac aaa gct	38157
Glu Gly Leu Glu Tyr	Ser Phe Arg Ile Tyr	Ala Leu Asn Lys Ala	

12665					12670					12675					
gga tcc agc cca ccc	agc aaa ccc aca gaa	tat gta act gca aga	38202												
Gly Ser Ser Pro Pro	Ser Lys Pro Thr Glu	Tyr Val Thr Ala Arg													
	12680	12685													
atg cca gtt gat cct	cct ggg aaa cct gag	gtt att gat gtc acc	38247												
Met Pro Val Asp Pro	Pro Gly Lys Pro Glu	Val Ile Asp Val Thr													
	12695	12700													
aag agt act gta tct	ctg atc tgg gct cgt	cca aag cat gat gga	38292												
Lys Ser Thr Val Ser	Leu Ile Trp Ala Arg	Pro Lys His Asp Gly													
	12710	12715													
ggc agt aaa att att	ggc tat ttc gta gaa	gct tgc aaa ctt cct	38337												
Gly Ser Lys Ile Ile	Gly Tyr Phe Val Glu	Ala Cys Lys Leu Pro													
	12725	12730													
ggt gat aaa tgg gta	cgg tgc aat act gca	cct cac cag att ccc	38382												
Gly Asp Lys Trp Val	Arg Cys Asn Thr Ala	Pro His Gln Ile Pro													
	12740	12745													
cag gaa gag tac aca	gct act ggc cta gaa	gag aaa gct cag tat	38427												
Gln Glu Glu Tyr Thr	Ala Thr Gly Leu Glu	Glu Lys Ala Gln Tyr													
	12755	12760													
caa ttt aga gct att	gcc agg acc gcg gta	aac att agc cca cct	38472												
Gln Phe Arg Ala Ile	Ala Arg Thr Ala Val	Asn Ile Ser Pro Pro													
	12770	12775													
tct gaa cct tct gat	cca gtg act atc ctc	gca gaa aat gtc cct	38517												
Ser Glu Pro Ser Asp	Pro Val Thr Ile Leu	Ala Glu Asn Val Pro													
	12785	12790													
ccc agg ata gac ctg	agt gtg gct atg aaa	tct ttg ctt act gtg	38562												
Pro Arg Ile Asp Leu	Ser Val Ala Met Lys	Ser Leu Leu Thr Val													
	12800	12805													
aaa gct gga act aat	gtc tgc ttg gat gct	act gtt ttt ggt aaa	38607												
Lys Ala Gly Thr Asn	Val Cys Leu Asp Ala	Thr Val Phe Gly Lys													
	12815	12820													
ccg atg cca aca gtt	tct tgg aaa aaa gat	ggc aca ctg cta aaa	38652												
Pro Met Pro Thr Val	Ser Trp Lys Lys Asp	Gly Thr Leu Leu Lys													
	12830	12835													
cca gca gaa ggc ata	aag atg gcc atg cag	cgg aat ctg tgc acc	38697												
Pro Ala Glu Gly Ile	Lys Met Ala Met Gln	Arg Asn Leu Cys Thr													
	12845	12850													
ttg gag cta ttc agc	gtg aac cgg aag gac	tca gga gac tat acc	38742												
Leu Glu Leu Phe Ser	Val Asn Arg Lys Asp	Ser Gly Asp Tyr Thr													
	12860	12865													
att act gct gaa aat	tca agt ggt tct aaa	tca gcc acc att aag	38787												
Ile Thr Ala Glu Asn	Ser Ser Gly Ser Lys	Ser Ala Thr Ile Lys													
	12875	12880													

ctt aaa gtg tta gat Leu Lys Val Leu Ser 12890	aaa ccg ggt cct cca Lys Pro Gly Pro Pro 12895	gca tct gtt aaa atc Ala Ser Val Lys Ile 12900	38832
aac aaa atg tat tca Asn Lys Met Tyr Ser 12905	gat cgt gct atg ctt Asp Arg Ala Met Leu 12910	tct tgg gaa ccg cct Ser Trp Glu Pro Pro 12915	38877
ctt gaa gat gga ggc Leu Glu Asp Gly Gly 12920	tca gaa atc acc aac Ser Glu Ile Thr Asn 12925	tat att gtt gac aaa Tyr Ile Val Asp Lys 12930	38922
cgt gaa aca agc agg Arg Glu Thr Ser Arg 12935	ccc aac tgg gct caa Pro Asn Trp Ala Gln 12940	gtc tct gca act gtg Val Ser Ala Thr Val 12945	38967
cct atc acc agc tgc Pro Ile Thr Ser Cys 12950	agc gtg gag aaa ctt Ser Val Glu Lys Leu 12955	ata gag ggc cat gag Ile Glu Gly His Glu 12960	39012
tat cag ttc cgt att Tyr Gln Phe Arg Ile 12965	tgt gct gaa aat aaa Cys Ala Glu Asn Lys 12970	tat gga gta ggc gat Tyr Gly Val Gly Asp 12975	39057
cca gtc ttc act gaa Pro Val Phe Thr Glu 12980	cca gca att gcc aaa Pro Ala Ile Ala Lys 12985	aac cca tat gac cca Asn Pro Tyr Asp Pro 12990	39102
cca gga cgc tgt gat Pro Gly Arg Cys Asp 12995	cct cct gtt att agc Pro Pro Val Ile Ser 13000	aac ata acc aaa gat Asn Ile Thr Lys Asp 13005	39147
cac atg aca gtc agc His Met Thr Val Ser 13010	tgg aag cca cca gca Trp Lys Pro Pro Ala 13015	gat gat ggg ggc tca Asp Asp Gly Gly Ser 13020	39192
ccc atc act ggc tat Pro Ile Thr Gly Tyr 13025	ttg ctt gaa aag cgg Leu Leu Glu Lys Arg 13030	gaa acc cag gct gtt Glu Thr Gln Ala Val 13035	39237
aac tgg act aag gtc Asn Trp Thr Lys Val 13040	aac aga aaa cct att Asn Arg Lys Pro Ile 13045	ata gaa aga aca tta Ile Glu Arg Thr Leu 13050	39282
aaa gca aca ggt ctt Lys Ala Thr Gly Leu 13055	caa gaa ggt acc gaa Gln Glu Gly Thr Glu 13060	tat gag ttc cgt gtt Tyr Glu Phe Arg Val 13065	39327
aca gct ata aat aaa Thr Ala Ile Asn Lys 13070	gct gga cca ggc aaa Ala Gly Pro Gly Lys 13075	ccc agt gac gca tcc Pro Ser Asp Ala Ser 13080	39372
aag gcc gct tat gct Lys Ala Ala Tyr Ala 13085	cgg gac cct cag tat Arg Asp Pro Gln Tyr 13090	cct cct gcg cca ccg Pro Pro Ala Pro Pro 13095	39417
gct ttc cct aaa gta Ala Phe Pro Lys Val	tat gat aca act cgc Tyr Asp Thr Thr Arg	agc tct gtg agt cta Ser Ser Val Ser Leu	39462

13100					13105					13110					
tct	tgg	ggc	aag	cca	gcc	tat	gac	ggc	ggc	agc	cct	atc	att	ggc	39507
Ser	Trp	Gly	Lys	Pro	Ala	Tyr	Asp	Gly	Gly	Ser	Pro	Ile	Ile	Gly	
				13115					13120					13125	
tat	ctc	gtt	gaa	gta	aaa	cgg	gct	gac	tcc	gat	aac	tgg	gtg	agg	39552
Tyr	Leu	Val	Glu	Val	Lys	Arg	Ala	Asp	Ser	Asp	Asn	Trp	Val	Arg	
				13130					13135					13140	
tgc	aac	tta	cca	cag	aat	cta	cag	aaa	acc	cgc	ttt	gag	gtt	act	39597
Cys	Asn	Leu	Pro	Gln	Asn	Leu	Gln	Lys	Thr	Arg	Phe	Glu	Val	Thr	
				13145					13150					13155	
ggc	ctg	atg	gaa	gac	aca	caa	tat	caa	ttc	cgt	gtg	tat	gcc	gtt	39642
Gly	Leu	Met	Glu	Asp	Thr	Gln	Tyr	Gln	Phe	Arg	Val	Tyr	Ala	Val	
				13160					13165					13170	
aat	aag	att	gga	tac	agt	gac	ccc	agt	gat	gtg	cca	gat	aaa	cac	39687
Asn	Lys	Ile	Gly	Tyr	Ser	Asp	Pro	Ser	Asp	Val	Pro	Asp	Lys	His	
				13175					13180					13185	
tat	ccc	aag	gac	atc	tta	att	cca	cct	gag	gga	gaa	cat	gat	gcg	39732
Tyr	Pro	Lys	Asp	Ile	Leu	Ile	Pro	Pro	Glu	Gly	Glu	His	Asp	Ala	
				13190					13195					13200	
gac	tta	agg	aag	aca	ctc	ata	tta	cgt	gct	gga	gtt	act	atg	aga	39777
Asp	Leu	Arg	Lys	Thr	Leu	Ile	Leu	Arg	Ala	Gly	Val	Thr	Met	Arg	
				13205					13210					13215	
cta	tat	gta	cca	gta	aaa	gga	cgc	cca	cct	cca	aag	att	act	tgg	39822
Leu	Tyr	Val	Pro	Val	Lys	Gly	Arg	Pro	Pro	Pro	Lys	Ile	Thr	Trp	
				13220					13225					13230	
tct	aaa	cca	aat	gtc	aat	cta	aga	gac	agg	att	gga	ctg	gac	ata	39867
Ser	Lys	Pro	Asn	Val	Asn	Leu	Arg	Asp	Arg	Ile	Gly	Leu	Asp	Ile	
				13235					13240					13245	
aag	tca	act	gac	ttt	gac	act	ttc	ttg	cgc	tgt	gaa	aat	gtg	aac	39912
Lys	Ser	Thr	Asp	Phe	Asp	Thr	Phe	Leu	Arg	Cys	Glu	Asn	Val	Asn	
				13250					13255					13260	
aaa	tat	gat	gca	gga	aaa	tat	atc	tta	acc	ctg	gag	aac	agc	tgt	39957
Lys	Tyr	Asp	Ala	Gly	Lys	Tyr	Ile	Leu	Thr	Leu	Glu	Asn	Ser	Cys	
				13265					13270					13275	
ggc	aaa	aag	gaa	tat	acc	att	gtt	gtg	aaa	gtg	ctt	gat	act	cct	40002
Gly	Lys	Lys	Glu	Tyr	Thr	Ile	Val	Val	Lys	Val	Leu	Asp	Thr	Pro	
				13280					13285					13290	
ggg	cca	cct	atc	aat	gtg	act	gtt	aag	gaa	ata	tcc	aaa	gac	tct	40047
Gly	Pro	Pro	Ile	Asn	Val	Thr	Val	Lys	Glu	Ile	Ser	Lys	Asp	Ser	
				13295					13300					13305	
gct	tat	gtt	acc	tgg	gag	cct	ccc	att	att	gat	ggc	gga	agc	ccc	40092
Ala	Tyr	Val	Thr	Trp	Glu	Pro	Pro	Ile	Ile	Asp	Gly	Gly	Ser	Pro	
				13310					13315					13320	

atc ata aac tat gtg	gta caa aaa cgt gat	gca gag agg aaa tcc	40137
Ile Ile Asn Tyr Val	Val Gln Lys Arg Asp	Ala Glu Arg Lys Ser	
13325	13330	13335	
tgg tct aca gtg aca	act gag tgc tcc aaa	aca agc ttc aga gta	40182
Trp Ser Thr Val Thr	Thr Glu Cys Ser Lys	Thr Ser Phe Arg Val	
13340	13345	13350	
cct aat ttg gag gag	gga aaa tcc tac ttc	ttc cga gtg ttt gct	40227
Pro Asn Leu Glu Glu	Gly Lys Ser Tyr Phe	Phe Arg Val Phe Ala	
13355	13360	13365	
gaa aat gag tat ggc	att ggt gat ccc ggt	gaa act cgt gat gct	40272
Glu Asn Glu Tyr Gly	Ile Gly Asp Pro Gly	Glu Thr Arg Asp Ala	
13370	13375	13380	
gtc aaa gct tcc caa	act cct gga cca gtt	gtg gac ctg aaa gtg	40317
Val Lys Ala Ser Gln	Thr Pro Gly Pro Val	Val Asp Leu Lys Val	
13385	13390	13395	
agg tct gta tct aag	tca tcc tgt agc att	ggc tgg aaa aag cct	40362
Arg Ser Val Ser Lys	Ser Ser Cys Ser Ile	Gly Trp Lys Lys Pro	
13400	13405	13410	
cac agt gat ggt gga	agt cgg att att gga	tat gta gtt gat ttc	40407
His Ser Asp Gly Gly	Ser Arg Ile Ile Gly	Tyr Val Val Asp Phe	
13415	13420	13425	
ctg act gaa gaa aat	aag tgg caa cga gtt	atg aaa tcc tta agc	40452
Leu Thr Glu Glu Asn	Lys Trp Gln Arg Val	Met Lys Ser Leu Ser	
13430	13435	13440	
cta cag tac tct gca	aaa gat ttg act gaa	ggg aag gaa tat acc	40497
Leu Gln Tyr Ser Ala	Lys Asp Leu Thr Glu	Gly Lys Glu Tyr Thr	
13445	13450	13455	
ttc aga gtg agt gct	gag aat gaa aat gga	gaa gga acc cca agc	40542
Phe Arg Val Ser Ala	Glu Asn Glu Asn Gly	Glu Gly Thr Pro Ser	
13460	13465	13470	
gaa atc act gtt gtg	gca agg gat gat gtt	gtg gct cct gat ctt	40587
Glu Ile Thr Val Val	Ala Arg Asp Asp Val	Val Ala Pro Asp Leu	
13475	13480	13485	
gac tta aag ggt cta	cct gat ttg tgc tac	ttg gct aaa gaa aac	40632
Asp Leu Lys Gly Leu	Pro Asp Leu Cys Tyr	Leu Ala Lys Glu Asn	
13490	13495	13500	
agc aac ttc cgg ctt	aag atc ccc ata aaa	ggc aag cca gct cca	40677
Ser Asn Phe Arg Leu	Lys Ile Pro Ile Lys	Gly Lys Pro Ala Pro	
13505	13510	13515	
tca gtc tcc tgg aag	aaa ggg gaa gat cct	cta gca act gac act	40722
Ser Val Ser Trp Lys	Lys Gly Glu Asp Pro	Leu Ala Thr Asp Thr	
13520	13525	13530	
aga gtc agt gtt gag	tca tct gcg gtt aac	aca act ctt ata gtg	40767
Arg Val Ser Val Glu	Ser Ser Ala Val Asn	Thr Thr Leu Ile Val	

13535					13540					13545					
tac	gat	tgc	caa	aaa	tct	gat	gct	gga	aaa	tac	aca	atc	aca	ctt	40812
Tyr	Asp	Cys	Gln	Lys	Ser	Asp	Ala	Gly	Lys	Tyr	Thr	Ile	Thr	Leu	
				13550					13555					13560	
aag	aat	gtt	gct	ggc	acc	aag	gaa	gga	act	atc	tcc	ata	aag	gtt	40857
Lys	Asn	Val	Ala	Gly	Thr	Lys	Glu	Gly	Thr	Ile	Ser	Ile	Lys	Val	
				13565					13570					13575	
gtt	ggc	aag	cct	ggc	atc	ccc	act	gga	cca	atc	aaa	ttt	gat	gaa	40902
Val	Gly	Lys	Pro	Gly	Ile	Pro	Thr	Gly	Pro	Ile	Lys	Phe	Asp	Glu	
				13580					13585					13590	
gtc	aca	gca	gaa	gcc	atg	acc	tta	aag	tgg	gct	cct	cca	aag	gat	40947
Val	Thr	Ala	Glu	Ala	Met	Thr	Leu	Lys	Trp	Ala	Pro	Pro	Lys	Asp	
				13595					13600					13605	
gat	gga	ggg	tct	gaa	atc	acc	aac	tat	atc	cta	gag	aag	agg	gat	40992
Asp	Gly	Gly	Ser	Glu	Ile	Thr	Asn	Tyr	Ile	Leu	Glu	Lys	Arg	Asp	
				13610					13615					13620	
tct	gtg	aac	aac	aag	tgg	gtg	acg	tgc	gcc	tca	gct	gtc	cag	aaa	41037
Ser	Val	Asn	Asn	Lys	Trp	Val	Thr	Cys	Ala	Ser	Ala	Val	Gln	Lys	
				13625					13630					13635	
acc	acc	ttt	aga	gta	acc	aga	ctt	cat	gag	ggc	atg	gaa	tat	acc	41082
Thr	Thr	Phe	Arg	Val	Thr	Arg	Leu	His	Glu	Gly	Met	Glu	Tyr	Thr	
				13640					13645					13650	
ttc	agg	gtc	agt	gcc	gaa	aat	aaa	tat	ggg	gta	ggg	gaa	ggc	ctg	41127
Phe	Arg	Val	Ser	Ala	Glu	Asn	Lys	Tyr	Gly	Val	Gly	Glu	Gly	Leu	
				13655					13660					13665	
aaa	tcg	gag	cca	att	gtt	gcg	aga	cat	cca	ttt	gat	gtg	cct	gat	41172
Lys	Ser	Glu	Pro	Ile	Val	Ala	Arg	His	Pro	Phe	Asp	Val	Pro	Asp	
				13670					13675					13680	
gct	ccc	cca	cct	ccc	aat	att	gtg	gat	gtc	aga	cac	gat	tca	gta	41217
Ala	Pro	Pro	Pro	Pro	Asn	Ile	Val	Asp	Val	Arg	His	Asp	Ser	Val	
				13685					13690					13695	
tct	cta	act	tgg	act	gac	ccc	aag	aaa	act	ggg	ggg	tct	cca	att	41262
Ser	Leu	Thr	Trp	Thr	Asp	Pro	Lys	Lys	Thr	Gly	Gly	Ser	Pro	Ile	
				13700					13705					13710	
aca	ggg	tat	cat	ctc	gag	ttc	aag	gaa	aga	aac	agc	ctt	ttg	tgg	41307
Thr	Gly	Tyr	His	Leu	Glu	Phe	Lys	Glu	Arg	Asn	Ser	Leu	Leu	Trp	
				13715					13720					13725	
aag	aga	gct	aac	aag	act	ccg	ata	agg	atg	aga	gac	ttt	aaa	gtg	41352
Lys	Arg	Ala	Asn	Lys	Thr	Pro	Ile	Arg	Met	Arg	Asp	Phe	Lys	Val	
				13730					13735					13740	
aca	gga	tta	act	gaa	ggg	ctt	gaa	tat	gaa	ttc	cga	gtt	atg	gca	41397
Thr	Gly	Leu	Thr	Glu	Gly	Leu	Glu	Tyr	Glu	Phe	Arg	Val	Met	Ala	
				13745					13750					13755	

atc aat tta gca ggt Ile Asn Leu Ala Gly 13760	gtg ggc aag cca agc Val Gly Lys Pro Ser 13765	cta cca tca gag cct Leu Pro Ser Glu Pro 13770	41442
gtt gtg gca ctg gac Val Val Ala Leu Asp 13775	cca att gat cct cct Pro Ile Asp Pro Pro 13780	gga aaa cct gag gtt Gly Lys Pro Glu Val 13785	41487
att aac ata aca agg Ile Asn Ile Thr Arg 13790	aat tca gtg act ctc Asn Ser Val Thr Leu 13795	att tgg act gaa cct Ile Trp Thr Glu Pro 13800	41532
aaa tat gac ggt ggt Lys Tyr Asp Gly Gly 13805	cat aag tta act gga His Lys Leu Thr Gly 13810	tat ata gtg gag aag Tyr Ile Val Glu Lys 13815	41577
cga gat cta cct tcg Arg Asp Leu Pro Ser 13820	aag tct tgg atg aaa Lys Ser Trp Met Lys 13825	gcc aac cat gtt aat Ala Asn His Val Asn 13830	41622
gtc cca gaa tgt gcc Val Pro Glu Cys Ala 13835	ttt act gta act gac Phe Thr Val Thr Asp 13840	ctt gtt gag ggt gga Leu Val Glu Gly Gly 13845	41667
aaa tat gaa ttc aga Lys Tyr Glu Phe Arg 13850	att aga gca aag aat Ile Arg Ala Lys Asn 13855	aca gca ggt gct atc Thr Ala Gly Ala Ile 13860	41712
agt gct cca tca gaa Ser Ala Pro Ser Glu 13865	agt aca gaa acc att Ser Thr Glu Thr Ile 13870	att tgc aag gat gaa Ile Cys Lys Asp Glu 13875	41757
tac gag gca cca aca Tyr Glu Ala Pro Thr 13880	att gtc ctt gat ccc Ile Val Leu Asp Pro 13885	aca ata aaa gat ggg Thr Ile Lys Asp Gly 13890	41802
cta aca att aaa gca Leu Thr Ile Lys Ala 13895	ggg gat acc att gtt Gly Asp Thr Ile Val 13900	ttg aat gcc att agc Leu Asn Ala Ile Ser 13905	41847
att ctt ggc aaa ccc Ile Leu Gly Lys Pro 13910	ctt cca aaa tca agt Leu Pro Lys Ser Ser 13915	tgg tcc aag gca gga Trp Ser Lys Ala Gly 13920	41892
aaa gac att aga cca Lys Asp Ile Arg Pro 13925	tca gat atc act cag Ser Asp Ile Thr Gln 13930	ata act tca acc cca Ile Thr Ser Thr Pro 13935	41937
aca tct tcc atg ctt Thr Ser Ser Met Leu 13940	act atc aag tat gcc Thr Ile Lys Tyr Ala 13945	act aga aaa gat gcg Thr Arg Lys Asp Ala 13950	41982
ggg gaa tat acc atc Gly Glu Tyr Thr Ile 13955	act gct acc aat cct Thr Ala Thr Asn Pro 13960	ttt ggc acg aag gtg Phe Gly Thr Lys Val 13965	42027
gaa cat gtg aag gta Glu His Val Lys Val	aca gtc ctt gat gta Thr Val Leu Asp Val	cct ggt ccc cca ggt Pro Gly Pro Pro Gly	42072

13970					13975					13980					
cct	gtt	gaa	atc	agt	aat	gtt	tct	gct	gaa	aaa	gca	aca	ctt	aca	42117
Pro	Val	Glu	Ile	Ser	Asn	Val	Ser	Ala	Glu	Lys	Ala	Thr	Leu	Thr	
13985					13990					13995					
tgg	aca	cct	ccc	ttg	gaa	gat	ggc	ggc	tca	cca	att	aag	tcc	tat	42162
Trp	Thr	Pro	Pro	Leu	Glu	Asp	Gly	Gly	Ser	Pro	Ile	Lys	Ser	Tyr	
14000					14005					14010					
ata	ctt	gaa	aag	aga	gaa	acc	agc	cga	ctt	ttg	tgg	aca	gtg	gtt	42207
Ile	Leu	Glu	Lys	Arg	Glu	Thr	Ser	Arg	Leu	Leu	Trp	Thr	Val	Val	
14015					14020					14025					
tct	gaa	gat	att	cag	tct	tgc	agg	cat	gtg	gca	acc	aaa	ctt	atc	42252
Ser	Glu	Asp	Ile	Gln	Ser	Cys	Arg	His	Val	Ala	Thr	Lys	Leu	Ile	
14030					14035					14040					
caa	gga	aat	gag	tac	atc	ttc	cgg	gtc	tca	gct	gta	aac	cac	tat	42297
Gln	Gly	Asn	Glu	Tyr	Ile	Phe	Arg	Val	Ser	Ala	Val	Asn	His	Tyr	
14045					14050					14055					
ggc	aaa	gga	gaa	cct	gta	cag	tct	gaa	cct	gtc	aaa	atg	gta	gac	42342
Gly	Lys	Gly	Glu	Pro	Val	Gln	Ser	Glu	Pro	Val	Lys	Met	Val	Asp	
14060					14065					14070					
aga	ttt	ggt	ccc	cct	ggc	cct	cct	gaa	aaa	cca	gag	gta	tca	aat	42387
Arg	Phe	Gly	Pro	Pro	Gly	Pro	Pro	Glu	Lys	Pro	Glu	Val	Ser	Asn	
14075					14080					14085					
gtc	act	aag	aac	act	gcc	act	gtc	agc	tgg	aaa	agg	cca	gtg	gat	42432
Val	Thr	Lys	Asn	Thr	Ala	Thr	Val	Ser	Trp	Lys	Arg	Pro	Val	Asp	
14090					14095					14100					
gat	ggt	ggc	agc	gaa	att	aca	gga	tat	cat	gta	gaa	agg	aga	gaa	42477
Asp	Gly	Gly	Ser	Glu	Ile	Thr	Gly	Tyr	His	Val	Glu	Arg	Arg	Glu	
14105					14110					14115					
aag	aaa	agc	ctg	cga	tgg	gtg	aga	gca	ata	aaa	aca	cca	gtt	tcc	42522
Lys	Lys	Ser	Leu	Arg	Trp	Val	Arg	Ala	Ile	Lys	Thr	Pro	Val	Ser	
14120					14125					14130					
gat	ctc	agg	tgc	aaa	gta	aca	gga	ctg	caa	gaa	gga	agc	acc	tac	42567
Asp	Leu	Arg	Cys	Lys	Val	Thr	Gly	Leu	Gln	Glu	Gly	Ser	Thr	Tyr	
14135					14140					14145					
gaa	ttc	cgt	gtc	agt	gca	gaa	aac	aga	gca	gga	att	ggt	cca	ccc	42612
Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Arg	Ala	Gly	Ile	Gly	Pro	Pro	
14150					14155					14160					
agt	gag	gct	tca	gat	tct	gtt	ctg	atg	aaa	gat	gca	gca	tat	cct	42657
Ser	Glu	Ala	Ser	Asp	Ser	Val	Leu	Met	Lys	Asp	Ala	Ala	Tyr	Pro	
14165					14170					14175					
cca	gga	cca	cct	tca	aat	ccg	cat	gtc	act	gat	act	acc	aag	aaa	42702
Pro	Gly	Pro	Pro	Ser	Asn	Pro	His	Val	Thr	Asp	Thr	Thr	Lys	Lys	
14180					14185					14190					

tct gct tct ttg gca	tgg ggc aag cct cat	tat gat ggt gga ctt	42747
Ser Ala Ser Leu Ala	Trp Gly Lys Pro His	Tyr Asp Gly Gly Leu	
14195	14200	14205	
gaa atc act ggc tat	gtc gtg gag cat caa	aaa gta gga gac gag	42792
Glu Ile Thr Gly Tyr	Val Val Glu His Gln	Lys Val Gly Asp Glu	
14210	14215	14220	
gcc tgg ata aaa gat	acc aca gga acc gcc	ctc aga atc act cag	42837
Ala Trp Ile Lys Asp	Thr Thr Gly Thr Ala	Leu Arg Ile Thr Gln	
14225	14230	14235	
ttc gtt gtt cct gat	ctt cag act aaa gaa	aaa tac aac ttc aga	42882
Phe Val Val Pro Asp	Leu Gln Thr Lys Glu	Lys Tyr Asn Phe Arg	
14240	14245	14250	
atc agt gcc atc aac	gat gca ggt gtt ggg	gag cca gcg gtg att	42927
Ile Ser Ala Ile Asn	Asp Ala Gly Val Gly	Glu Pro Ala Val Ile	
14255	14260	14265	
cca gat gtt gaa atc	gta gaa cgg gag atg	gct cct gat ttt gaa	42972
Pro Asp Val Glu Ile	Val Glu Arg Glu Met	Ala Pro Asp Phe Glu	
14270	14275	14280	
cta gat gcc gag ctt	cga aga aca ctt gtt	gtt aga gca gga ctc	43017
Leu Asp Ala Glu Leu	Arg Arg Thr Leu Val	Val Arg Ala Gly Leu	
14285	14290	14295	
agt att agg ata ttt	gtg cca att aaa ggt	cgt cct gct cct gaa	43062
Ser Ile Arg Ile Phe	Val Pro Ile Lys Gly	Arg Pro Ala Pro Glu	
14300	14305	14310	
gtg aca tgg acc aaa	gat aac atc aac ctg	aaa aac cga gcc aac	43107
Val Thr Trp Thr Lys	Asp Asn Ile Asn Leu	Lys Asn Arg Ala Asn	
14315	14320	14325	
att gaa aat acg gaa	tca ttt act ctt ctg	att atc cca gaa tgt	43152
Ile Glu Asn Thr Glu	Ser Phe Thr Leu Leu	Ile Ile Pro Glu Cys	
14330	14335	14340	
aac aga tat gat acc	ggt aaa ttt gtc atg	acc att gaa aac ccg	43197
Asn Arg Tyr Asp Thr	Gly Lys Phe Val Met	Thr Ile Glu Asn Pro	
14345	14350	14355	
gct ggg aag aaa agt	ggc ttt gtg aac gtc	aga gtc ttg gac acg	43242
Ala Gly Lys Lys Ser	Gly Phe Val Asn Val	Arg Val Leu Asp Thr	
14360	14365	14370	
cca ggc cca gtc ctc	aac ctg cgg cct aca	gac atc aca aag gac	43287
Pro Gly Pro Val Leu	Asn Leu Arg Pro Thr	Asp Ile Thr Lys Asp	
14375	14380	14385	
agt gtc acc ctg cac	tgg gac ctc cct ctg	ata gat gga ggc tca	43332
Ser Val Thr Leu His	Trp Asp Leu Pro Leu	Ile Asp Gly Gly Ser	
14390	14395	14400	
cgt ata aca aac tac	att gta gag aaa cgt	gaa gca aca cgg aaa	43377
Arg Ile Thr Asn Tyr	Ile Val Glu Lys Arg	Glu Ala Thr Arg Lys	

14405	14410	14415	
tct tat tcc aca gcc Ser Tyr Ser Thr Ala 14420	acc act aag tgc cat Thr Thr Lys Cys His 14425	aaa tgc aca tat aaa Lys Cys Thr Tyr Lys 14430	43422
gtt acc ggc ttg tct Val Thr Gly Leu Ser 14435	gaa ggg tgt gaa tat Glu Gly Cys Glu Tyr 14440	ttc ttc aga gtg atg Phe Phe Arg Val Met 14445	43467
gca gag aat gaa tat Ala Glu Asn Glu Tyr 14450	gga att ggt gag cca Gly Ile Gly Glu Pro 14455	aca gaa act aca gag Thr Glu Thr Thr Glu 14460	43512
ccc gta aaa gcc tct Pro Val Lys Ala Ser 14465	gaa gca cca tct cca Glu Ala Pro Ser Pro 14470	cca gac agc ctt aac Pro Asp Ser Leu Asn 14475	43557
atc atg gac ata act Ile Met Asp Ile Thr 14480	aag agc acc gtc agc Lys Ser Thr Val Ser 14485	ctg gca tgg cct aag Leu Ala Trp Pro Lys 14490	43602
ccc aaa cac gat ggt Pro Lys His Asp Gly 14495	ggc agc aag atc act Gly Ser Lys Ile Thr 14500	ggc tat gtg att gaa Gly Tyr Val Ile Glu 14505	43647
gcc caa aga aaa ggc Ala Gln Arg Lys Gly 14510	tct gac cag tgg acc Ser Asp Gln Trp Thr 14515	cac atc aca acc gtg His Ile Thr Thr Val 14520	43692
aaa ggg tta gaa tgt Lys Gly Leu Glu Cys 14525	gtt gtg agg aat cta Val Val Arg Asn Leu 14530	act gaa gga gag gaa Thr Glu Gly Glu Glu 14535	43737
tat acc ttc caa gtg Tyr Thr Phe Gln Val 14540	atg gca gtg aac agc Met Ala Val Asn Ser 14545	gcg ggg aga agt gcc Ala Gly Arg Ser Ala 14550	43782
cct aga gaa agc aga Pro Arg Glu Ser Arg 14555	ccc gtc att gtc aag Pro Val Ile Val Lys 14560	gag cag aca atg ctt Glu Gln Thr Met Leu 14565	43827
cca gag ctg gat ctc Pro Glu Leu Asp Leu 14570	cgt ggc atc tat cag Arg Gly Ile Tyr Gln 14575	aaa ctg gtc att gcc Lys Leu Val Ile Ala 14580	43872
aaa gct ggt gac aac Lys Ala Gly Asp Asn 14585	atc aaa gtt gaa att Ile Lys Val Glu Ile 14590	cca gtg ctc ggt cga Pro Val Leu Gly Arg 14595	43917
ccg aag ccc aca gtg Pro Lys Pro Thr Val 14600	aca tgg aaa aaa gga Thr Trp Lys Lys Gly 14605	gac caa att ctt aaa Asp Gln Ile Leu Lys 14610	43962
cag aca cag aga gtt Gln Thr Gln Arg Val 14615	aat ttt gaa acc aca Asn Phe Glu Thr Thr 14620	gcg act tca acc att Ala Thr Ser Thr Ile 14625	44007

tta aat atc aat gag	tgt gtc aga agt gat	agt ggg ccc tat cca	44052
Leu Asn Ile Asn Glu	Cys Val Arg Ser Asp	Ser Gly Pro Tyr Pro	
14630	14635	14640	
tta aca gca agg aac	att gta gga gag gtt	ggt gat gtc atc acc	44097
Leu Thr Ala Arg Asn	Ile Val Gly Glu Val	Gly Asp Val Ile Thr	
14645	14650	14655	
att caa gtc cat gat	atc cca ggg cca cct	act gga cca atc aaa	44142
Ile Gln Val His Asp	Ile Pro Gly Pro Pro	Thr Gly Pro Ile Lys	
14660	14665	14670	
ttt gat gaa gtt tca	tct gat ttt gta acc	ttc tct tgg gac cca	44187
Phe Asp Glu Val Ser	Ser Asp Phe Val Thr	Phe Ser Trp Asp Pro	
14675	14680	14685	
cct gag aac gat ggt	ggt gta cca ata agc	aac tat gta gtg gaa	44232
Pro Glu Asn Asp Gly	Gly Val Pro Ile Ser	Asn Tyr Val Val Glu	
14690	14695	14700	
atg cgg cag act gac	agt act acc tgg gtt	gag tta gca acc acc	44277
Met Arg Gln Thr Asp	Ser Thr Thr Trp Val	Glu Leu Ala Thr Thr	
14705	14710	14715	
gtt ata cgt act acc	tat aaa gcc acc cgc	ctt act act gga tta	44322
Val Ile Arg Thr Thr	Tyr Lys Ala Thr Arg	Leu Thr Thr Gly Leu	
14720	14725	14730	
gag tat cag ttc cgt	gta aaa gct cag aat	aga tat gga gtt gga	44367
Glu Tyr Gln Phe Arg	Val Lys Ala Gln Asn	Arg Tyr Gly Val Gly	
14735	14740	14745	
cca ggc atc aca tca	gca tgg ata gtt gcc	aac tat cca ttt aag	44412
Pro Gly Ile Thr Ser	Ala Trp Ile Val Ala	Asn Tyr Pro Phe Lys	
14750	14755	14760	
gtt cct gga cct cct	ggt acc cct cag gta	act gca gtt acc aag	44457
Val Pro Gly Pro Pro	Gly Thr Pro Gln Val	Thr Ala Val Thr Lys	
14765	14770	14775	
gat tca atg aca att	agc tgg cat gag cca	ctt tct gat ggt gga	44502
Asp Ser Met Thr Ile	Ser Trp His Glu Pro	Leu Ser Asp Gly Gly	
14780	14785	14790	
agc ccc att tta gga	tat cat gtt gaa aga	aaa gaa cga aat ggt	44547
Ser Pro Ile Leu Gly	Tyr His Val Glu Arg	Lys Glu Arg Asn Gly	
14795	14800	14805	
att ctc tgg cag act	gtg agc aaa gct tta	gta cca ggc aac att	44592
Ile Leu Trp Gln Thr	Val Ser Lys Ala Leu	Val Pro Gly Asn Ile	
14810	14815	14820	
ttc aaa tca agt gga	ctt aca gat ggt att	gct tat gag ttc cgg	44637
Phe Lys Ser Ser Gly	Leu Thr Asp Gly Ile	Ala Tyr Glu Phe Arg	
14825	14830	14835	
gtg att gca gaa aac	atg gca ggc aaa agt	aag cca agc aag cca	44682
Val Ile Ala Glu Asn	Met Ala Gly Lys Ser	Lys Pro Ser Lys Pro	

14840	14845	14850	
tca gaa cct atg ttg Ser Glu Pro Met Leu 14855	gct ctg gat ccc att Ala Leu Asp Pro Ile 14860	gac cca cct gga aaa Asp Pro Pro Gly Lys 14865	44727
cca gta cct cta aat Pro Val Pro Leu Asn 14870	att aca aga cac aca Ile Thr Arg His Thr 14875	gta aca ctt aaa tgg Val Thr Leu Lys Trp 14880	44772
gct aag cct gaa tat Ala Lys Pro Glu Tyr 14885	act ggg ggc ttt aaa Thr Gly Gly Phe Lys 14890	att acc agt tat atc Ile Thr Ser Tyr Ile 14895	44817
gtt gaa aag aga gac Val Glu Lys Arg Asp 14900	ctt cct aat gga cgg Leu Pro Asn Gly Arg 14905	tgg ctg aag gcc aac Trp Leu Lys Ala Asn 14910	44862
ttc agc aac att ttg Phe Ser Asn Ile Leu 14915	gag aat gaa ttt aca Glu Asn Glu Phe Thr 14920	gtc agt ggc cta aca Val Ser Gly Leu Thr 14925	44907
gaa gat gct gca tat Glu Asp Ala Ala Tyr 14930	gaa ttc cgt gtg atc Glu Phe Arg Val Ile 14935	gcc aaa aat gct gca Ala Lys Asn Ala Ala 14940	44952
ggc gcc atc agt cca Gly Ala Ile Ser Pro 14945	cca tct gag cca tct Pro Ser Glu Pro Ser 14950	gat gct atc act tgc Asp Ala Ile Thr Cys 14955	44997
agg gat gat gtt gag Arg Asp Asp Val Glu 14960	gca cca aag ata aag Ala Pro Lys Ile Lys 14965	gtg gat gtt aaa ttt Val Asp Val Lys Phe 14970	45042
aag gac acg gtt ata Lys Asp Thr Val Ile 14975	tta aaa gca ggt gaa Leu Lys Ala Gly Glu 14980	gca ttc aga ctg gaa Ala Phe Arg Leu Glu 14985	45087
gct gat gtt tca ggc Ala Asp Val Ser Gly 14990	cgc cca cct cca aca Arg Pro Pro Pro Thr 14995	atg gaa tgg agc aaa Met Glu Trp Ser Lys 15000	45132
gat gga aaa gag ctg Asp Gly Lys Glu Leu 15005	gaa ggc aca gca aag Glu Gly Thr Ala Lys 15010	tta gaa ata aaa att Leu Glu Ile Lys Ile 15015	45177
gca gat ttc tct act Ala Asp Phe Ser Thr 15020	aat ctg gta aac aaa Asn Leu Val Asn Lys 15025	gat tca aca aga agg Asp Ser Thr Arg Arg 15030	45222
gat agt ggt gcc tat Asp Ser Gly Ala Tyr 15035	acc ctt aca gcg act Thr Leu Thr Ala Thr 15040	aat cct ggt ggc ttt Asn Pro Gly Gly Phe 15045	45267
gct aaa cac att ttc Ala Lys His Ile Phe 15050	aat gtc aaa gtt ctt Asn Val Lys Val Leu 15055	gac aga cca ggc cca Asp Arg Pro Gly Pro 15060	45312

cct gaa gga cct ttg	gct gta act gaa gtg	aca tca gaa aag tgt	45357
Pro Glu Gly Pro Leu	Ala Val Thr Glu Val	Thr Ser Glu Lys Cys	
15065	15070	15075	
gta cta tca tgg ttc	cct cca ctg gat gat	gga ggt gcc aaa att	45402
Val Leu Ser Trp Phe	Pro Pro Leu Asp Asp	Gly Gly Ala Lys Ile	
15080	15085	15090	
gat cat tac ata gta	cag aaa cgt gaa acc	agc aga ttg gca tgg	45447
Asp His Tyr Ile Val	Gln Lys Arg Glu Thr	Ser Arg Leu Ala Trp	
15095	15100	15105	
aca aat gta gcc tca	gaa gtc caa gta aca	aag cta aag gtc act	45492
Thr Asn Val Ala Ser	Glu Val Gln Val Thr	Lys Leu Lys Val Thr	
15110	15115	15120	
aaa ctc ttg aaa ggc	aat gaa tac ata ttc	cgt gtc atg gct gta	45537
Lys Leu Leu Lys Gly	Asn Glu Tyr Ile Phe	Arg Val Met Ala Val	
15125	15130	15135	
aat aaa tat gga gtg	gga gag cca ctg gaa	tca gag cct gtg ctt	45582
Asn Lys Tyr Gly Val	Gly Glu Pro Leu Glu	Ser Glu Pro Val Leu	
15140	15145	15150	
gca gtg aat cct tat	gga ccc cct gat ccg	ccc aaa aac cct gaa	45627
Ala Val Asn Pro Tyr	Gly Pro Pro Asp Pro	Pro Lys Asn Pro Glu	
15155	15160	15165	
gtg aca act att act	aaa gat tcg atg gtt	gtc tgc tgg gga cat	45672
Val Thr Thr Ile Thr	Lys Asp Ser Met Val	Val Cys Trp Gly His	
15170	15175	15180	
cct gat tct gat ggt	gga agt gaa atc atc	aat tat att gtg gaa	45717
Pro Asp Ser Asp Gly	Gly Ser Glu Ile Ile	Asn Tyr Ile Val Glu	
15185	15190	15195	
cgg cgt gat aaa gct	ggc caa cgc tgg att	aaa tgc aac aaa aaa	45762
Arg Arg Asp Lys Ala	Gly Gln Arg Trp Ile	Lys Cys Asn Lys Lys	
15200	15205	15210	
act ctt act gat tta	aga tat aaa gtg tct	gga ctg aca gaa gga	45807
Thr Leu Thr Asp Leu	Arg Tyr Lys Val Ser	Gly Leu Thr Glu Gly	
15215	15220	15225	
cat gaa tat gag ttc	agg att atg gct gaa	aat gct gct gga att	45852
His Glu Tyr Glu Phe	Arg Ile Met Ala Glu	Asn Ala Ala Gly Ile	
15230	15235	15240	
agt gca cca agt cct	acc agt cca ttt tac	aag gct tgt gac act	45897
Ser Ala Pro Ser Pro	Thr Ser Pro Phe Tyr	Lys Ala Cys Asp Thr	
15245	15250	15255	
gtg ttt aaa cct gga	cca cca ggt aac cca	cgt gtt ctg gat aca	45942
Val Phe Lys Pro Gly	Pro Pro Gly Asn Pro	Arg Val Leu Asp Thr	
15260	15265	15270	
agc aga tca tcc att	tca atc gct tgg aat	aaa cct atc tat gat	45987
Ser Arg Ser Ser Ile	Ser Ile Ala Trp Asn	Lys Pro Ile Tyr Asp	

15275	15280	15285	
ggt ggt tca gaa atc Gly Gly Ser Glu Ile 15290	act ggg tat atg gtt Thr Gly Tyr Met Val 15295	gag att gcc ctg cca Glu Ile Ala Leu Pro 15300	46032
gag gaa gat gaa tgg Glu Glu Asp Glu Trp 15305	cag att gtc act cca Gln Ile Val Thr Pro 15310	cca gca gga ctc aag Pro Ala Gly Leu Lys 15315	46077
gca act tcg tat act Ala Thr Ser Tyr Thr 15320	atc act ggc ctc aca Ile Thr Gly Leu Thr 15325	gag aat cag gaa tat Glu Asn Gln Glu Tyr 15330	46122
aag atc cgc atc tat Lys Ile Arg Ile Tyr 15335	gcc atg aat tcc gaa Ala Met Asn Ser Glu 15340	gga ctt ggg gaa cct Gly Leu Gly Glu Pro 15345	46167
gcc ctt gtt cct gga Ala Leu Val Pro Gly 15350	act cca aag gct gaa Thr Pro Lys Ala Glu 15355	gac aga atg ctg cct Asp Arg Met Leu Pro 15360	46212
cca gaa att gaa ctg Pro Glu Ile Glu Leu 15365	gat gct gac ctg cgc Asp Ala Asp Leu Arg 15370	aaa gtt gtt act ata Lys Val Val Thr Ile 15375	46257
agg gcc tgc tgc acc Arg Ala Cys Cys Thr 15380	ctg aga ctt ttt gtt Leu Arg Leu Phe Val 15385	ccc atc aaa gga agg Pro Ile Lys Gly Arg 15390	46302
cct gac cct gag gtg Pro Asp Pro Glu Val 15395	aag tgg gcc cgg gac Lys Trp Ala Arg Asp 15400	cat gga gaa tct tta His Gly Glu Ser Leu 15405	46347
gat aaa gct agc atc Asp Lys Ala Ser Ile 15410	gaa tcc gca agc tct Glu Ser Ala Ser Ser 15415	tac acc ctg ctt att Tyr Thr Leu Leu Ile 15420	46392
gtt gga aat gta aac Val Gly Asn Val Asn 15425	aga ttt gac agt ggc Arg Phe Asp Ser Gly 15430	aaa tat ata cta act Lys Tyr Ile Leu Thr 15435	46437
gta gaa aat agt tca Val Glu Asn Ser Ser 15440	ggc agc aag tct gca Gly Ser Lys Ser Ala 15445	ttt gtc aat gtt aga Phe Val Asn Val Arg 15450	46482
gtt ctc gat aca cca Val Leu Asp Thr Pro 15455	ggc ccc cca cag gat Gly Pro Pro Gln Asp 15460	ctg aag gta aaa gag Leu Lys Val Lys Glu 15465	46527
gtc act aag aca tct Val Thr Lys Thr Ser 15470	gtc aca ctc aca tgg Val Thr Leu Thr Trp 15475	gac cca cct ctc ctt Asp Pro Pro Leu Leu 15480	46572
gat gga ggt tca aaa Asp Gly Gly Ser Lys 15485	atc aag aac tat att Ile Lys Asn Tyr Ile 15490	gtt gaa aag cgg gaa Val Glu Lys Arg Glu 15495	46617

tca	aca	aga	aaa	gca	tat	tca	act	gtt	gca	aca	aac	tgc	cac	aag	46662
Ser	Thr	Arg	Lys	Ala	Tyr	Ser	Thr	Val	Ala	Thr	Asn	Cys	His	Lys	
				15500					15505					15510	
act	tcc	tgg	aag	gta	gac	cag	ctt	caa	gaa	ggc	tgt	agc	tac	tat	46707
Thr	Ser	Trp	Lys	Val	Asp	Gln	Leu	Gln	Glu	Gly	Cys	Ser	Tyr	Tyr	
				15515					15520					15525	
ttc	agg	gtt	ctc	gca	gaa	aat	gaa	tat	ggc	att	ggg	ctg	cct	gct	46752
Phe	Arg	Val	Leu	Ala	Glu	Asn	Glu	Tyr	Gly	Ile	Gly	Leu	Pro	Ala	
				15530					15535					15540	
gaa	acc	gca	gaa	tct	gtg	aaa	gca	tca	gaa	cga	cct	ctt	cct	cca	46797
Glu	Thr	Ala	Glu	Ser	Val	Lys	Ala	Ser	Glu	Arg	Pro	Leu	Pro	Pro	
				15545					15550					15555	
gga	aaa	ata	act	ttg	atg	gat	gtc	aca	aga	aat	agt	gtg	tca	ctc	46842
Gly	Lys	Ile	Thr	Leu	Met	Asp	Val	Thr	Arg	Asn	Ser	Val	Ser	Leu	
				15560					15565					15570	
tct	tgg	gag	aaa	cca	gag	cat	gat	gga	ggc	agc	cga	att	cta	ggc	46887
Ser	Trp	Glu	Lys	Pro	Glu	His	Asp	Gly	Gly	Ser	Arg	Ile	Leu	Gly	
				15575					15580					15585	
tac	att	gtg	gag	atg	cag	acc	aaa	ggc	agt	gac	aaa	tgg	gcc	acg	46932
Tyr	Ile	Val	Glu	Met	Gln	Thr	Lys	Gly	Ser	Asp	Lys	Trp	Ala	Thr	
				15590					15595					15600	
tgt	gcc	aca	gtc	aag	gtc	act	gaa	gcc	act	atc	act	gga	tta	att	46977
Cys	Ala	Thr	Val	Lys	Val	Thr	Glu	Ala	Thr	Ile	Thr	Gly	Leu	Ile	
				15605					15610					15615	
cag	ggt	gaa	gaa	tac	tct	ttc	cgt	gtt	tca	gct	cag	aat	gaa	aag	47022
Gln	Gly	Glu	Glu	Tyr	Ser	Phe	Arg	Val	Ser	Ala	Gln	Asn	Glu	Lys	
				15620					15625					15630	
ggc	atc	agt	gat	cct	aga	caa	ctg	agt	gtg	cca	gtg	atc	gcc	aaa	47067
Gly	Ile	Ser	Asp	Pro	Arg	Gln	Leu	Ser	Val	Pro	Val	Ile	Ala	Lys	
				15635					15640					15645	
gat	ctt	gtc	att	cca	cca	gcc	ttc	aaa	ctc	ctg	ttc	aat	act	ttc	47112
Asp	Leu	Val	Ile	Pro	Pro	Ala	Phe	Lys	Leu	Leu	Phe	Asn	Thr	Phe	
				15650					15655					15660	
act	gta	ctg	gca	ggt	gaa	gac	cta	aaa	gtt	gat	gtt	cca	ttc	att	47157
Thr	Val	Leu	Ala	Gly	Glu	Asp	Leu	Lys	Val	Asp	Val	Pro	Phe	Ile	
				15665					15670					15675	
ggc	cgc	cct	acc	cca	gct	gta	acc	tgg	cat	aaa	gat	aat	gta	cca	47202
Gly	Arg	Pro	Thr	Pro	Ala	Val	Thr	Trp	His	Lys	Asp	Asn	Val	Pro	
				15680					15685					15690	
ctg	aag	cag	aca	act	aga	gta	aat	gca	gag	agc	aca	gaa	aat	aat	47247
Leu	Lys	Gln	Thr	Thr	Arg	Val	Asn	Ala	Glu	Ser	Thr	Glu	Asn	Asn	
				15695					15700					15705	
tca	cta	ctg	aca	ata	aag	gac	gcc	tgc	cga	gaa	gat	gtt	ggc	cat	47292
Ser	Leu	Leu	Thr	Ile	Lys	Asp	Ala	Cys	Arg	Glu	Asp	Val	Gly	His	

15710					15715					15720					
tat	gtg	gtt	aaa	ctg	act	aac	tca	gct	ggg	gaa	gct	att	gaa	acc	47337
Tyr	Val	Val	Lys	Leu	Thr	Asn	Ser	Ala	Gly	Glu	Ala	Ile	Glu	Thr	
				15725					15730					15735	
ctt	aat	gtt	atc	gtt	ctt	gac	aaa	cca	ggg	cct	cca	act	gga	cca	47382
Leu	Asn	Val	Ile	Val	Leu	Asp	Lys	Pro	Gly	Pro	Pro	Thr	Gly	Pro	
				15740					15745					15750	
gtt	aaa	atg	gat	gaa	gtg	aca	gct	gat	agt	att	act	ctt	tcc	tgg	47427
Val	Lys	Met	Asp	Glu	Val	Thr	Ala	Asp	Ser	Ile	Thr	Leu	Ser	Trp	
				15755					15760					15765	
ggc	cca	ccc	aag	tat	gat	ggc	gga	agt	tct	atc	aat	aat	tac	att	47472
Gly	Pro	Pro	Lys	Tyr	Asp	Gly	Gly	Ser	Ser	Ile	Asn	Asn	Tyr	Ile	
				15770					15775					15780	
gtt	gag	aaa	cgg	gac	act	tcc	aca	acc	acc	tgg	caa	att	gta	tca	47517
Val	Glu	Lys	Arg	Asp	Thr	Ser	Thr	Thr	Thr	Trp	Gln	Ile	Val	Ser	
				15785					15790					15795	
gct	aca	gtt	gca	agg	aca	aca	ata	aag	gct	tgc	aga	ctg	aag	act	47562
Ala	Thr	Val	Ala	Arg	Thr	Thr	Ile	Lys	Ala	Cys	Arg	Leu	Lys	Thr	
				15800					15805					15810	
gga	tgt	gaa	tat	cag	ttt	aga	att	gca	gct	gaa	aac	aga	tat	ggg	47607
Gly	Cys	Glu	Tyr	Gln	Phe	Arg	Ile	Ala	Ala	Glu	Asn	Arg	Tyr	Gly	
				15815					15820					15825	
aag	agt	acc	tac	ctc	aat	tca	gag	cct	act	gta	gcc	caa	tat	cca	47652
Lys	Ser	Thr	Tyr	Leu	Asn	Ser	Glu	Pro	Thr	Val	Ala	Gln	Tyr	Pro	
				15830					15835					15840	
ttc	aaa	gtt	cct	ggg	cct	cct	ggc	act	cca	gtt	gtc	aca	ctg	tcc	47697
Phe	Lys	Val	Pro	Gly	Pro	Pro	Gly	Thr	Pro	Val	Val	Thr	Leu	Ser	
				15845					15850					15855	
tcc	agg	gac	agc	atg	gaa	gta	caa	tgg	aat	gag	cca	atc	agt	gat	47742
Ser	Arg	Asp	Ser	Met	Glu	Val	Gln	Trp	Asn	Glu	Pro	Ile	Ser	Asp	
				15860					15865					15870	
gga	gga	agt	aga	gtc	att	ggc	tat	cat	cta	gaa	cgc	aag	gaa	aga	47787
Gly	Gly	Ser	Arg	Val	Ile	Gly	Tyr	His	Leu	Glu	Arg	Lys	Glu	Arg	
				15875					15880					15885	
aat	agc	atc	ctc	tgg	gtt	aag	ttg	aat	aaa	aca	cct	att	cct	caa	47832
Asn	Ser	Ile	Leu	Trp	Val	Lys	Leu	Asn	Lys	Thr	Pro	Ile	Pro	Gln	
				15890					15895					15900	
acc	aag	ttt	aag	aca	act	ggc	ctt	gaa	gaa	ggg	gtt	gaa	tat	gaa	47877
Thr	Lys	Phe	Lys	Thr	Thr	Gly	Leu	Glu	Glu	Gly	Val	Glu	Tyr	Glu	
				15905					15910					15915	
ttt	aga	gtc	tct	gca	gag	aac	atc	gtg	ggc	att	ggc	aag	ccg	agt	47922
Phe	Arg	Val	Ser	Ala	Glu	Asn	Ile	Val	Gly	Ile	Gly	Lys	Pro	Ser	
				15920					15925					15930	

aaa gta tca gaa tgt	tat gtg gct cgt gac	cca tgt gat cca cca	47967
Lys Val Ser Glu Cys	Tyr Val Ala Arg Asp	Pro Cys Asp Pro Pro	
15935	15940	15945	
gga cgg cca gag gca	atc att gtc aca agg	aat tct gtg act ctt	48012
Gly Arg Pro Glu Ala	Ile Ile Val Thr Arg	Asn Ser Val Thr Leu	
15950	15955	15960	
cag tgg aag aaa ccc	acc tat gac ggt gga	agc aag atc act ggt	48057
Gln Trp Lys Lys Pro	Thr Tyr Asp Gly Gly	Ser Lys Ile Thr Gly	
15965	15970	15975	
tat att gtt gag aag	aaa gaa tta cct gag	ggc cgt tgg atg aaa	48102
Tyr Ile Val Glu Lys	Lys Glu Leu Pro Glu	Gly Arg Trp Met Lys	
15980	15985	15990	
gcc agt ttt aca aat	att att gac act cat	ttt gaa gta act ggc	48147
Ala Ser Phe Thr Asn	Ile Ile Asp Thr His	Phe Glu Val Thr Gly	
15995	16000	16005	
cta gtt gaa gat cac	aga tat gag ttc cgg	gtt ata gcc cga aat	48192
Leu Val Glu Asp His	Arg Tyr Glu Phe Arg	Val Ile Ala Arg Asn	
16010	16015	16020	
gcc gca gga gtg ttt	agt gag cct tca gaa	agc aca gga gca ata	48237
Ala Ala Gly Val Phe	Ser Glu Pro Ser Glu	Ser Thr Gly Ala Ile	
16025	16030	16035	
aca gct aga gat gag	gta gat cca cca cga	ata agt atg gat cca	48282
Thr Ala Arg Asp Glu	Val Asp Pro Pro Arg	Ile Ser Met Asp Pro	
16040	16045	16050	
aaa tac aaa gac aca	atc gtg gtt cat gct	ggc gaa tca ttc aag	48327
Lys Tyr Lys Asp Thr	Ile Val Val His Ala	Gly Glu Ser Phe Lys	
16055	16060	16065	
gtt gat gca gat att	tat ggc aaa cca ata	cca acc att cag tgg	48372
Val Asp Ala Asp Ile	Tyr Gly Lys Pro Ile	Pro Thr Ile Gln Trp	
16070	16075	16080	
ata aaa ggt gat cag	gag ctt tca aac aca	gct cga tta gaa ata	48417
Ile Lys Gly Asp Gln	Glu Leu Ser Asn Thr	Ala Arg Leu Glu Ile	
16085	16090	16095	
aag agc acc gac ttt	gcc acc agt ctc agt	gta aaa gat gca gta	48462
Lys Ser Thr Asp Phe	Ala Thr Ser Leu Ser	Val Lys Asp Ala Val	
16100	16105	16110	
cgt gtc gac agt gga	aat tac ata ctg aag	gcc aaa aat gtt gca	48507
Arg Val Asp Ser Gly	Asn Tyr Ile Leu Lys	Ala Lys Asn Val Ala	
16115	16120	16125	
gga gaa aga tca gtt	act gtg aat gtc aag	gtt ctt gac aga cca	48552
Gly Glu Arg Ser Val	Thr Val Asn Val Lys	Val Leu Asp Arg Pro	
16130	16135	16140	
ggg cca cct gaa gga	cct gtt gtt atc tca	gga gtt aca gca gaa	48597
Gly Pro Pro Glu Gly	Pro Val Val Ile Ser	Gly Val Thr Ala Glu	

	16145		16150		16155	
aaa tgc aca cta gct	tgg aaa ccc cca ctt	cag gat ggt ggg agt	48642			
Lys Cys Thr Leu Ala	Trp Lys Pro Pro Leu	Gln Asp Gly Gly Ser				
	16160		16165		16170	
gac atc ata aat tat	att gtg gaa agg aga	gaa acc agc cgc tta	48687			
Asp Ile Ile Asn Tyr	Ile Val Glu Arg Arg	Glu Thr Ser Arg Leu				
	16175		16180		16185	
gtt tgg act gtg gtt	gat gcc aat gtg cag	act ctc agc tgc aag	48732			
Val Trp Thr Val Val	Asp Ala Asn Val Gln	Thr Leu Ser Cys Lys				
	16190		16195		16200	
gtt act aag ctt ctt	gaa ggc aat gaa tat	act ttc cgt ata atg	48777			
Val Thr Lys Leu Leu	Glu Gly Asn Glu Tyr	Thr Phe Arg Ile Met				
	16205		16210		16215	
gca gta aac aaa tat	ggg gtt ggt gaa cct	ctt gaa tct gag cca	48822			
Ala Val Asn Lys Tyr	Gly Val Gly Glu Pro	Leu Glu Ser Glu Pro				
	16220		16225		16230	
gta gtt gcc aag aat	cca ttt gta gta cca	gat gca cca aaa gct	48867			
Val Val Ala Lys Asn	Pro Phe Val Val Pro	Asp Ala Pro Lys Ala				
	16235		16240		16245	
cca gaa gtc aca aca	gtg acc aag gac tca	atg att gtt gta tgg	48912			
Pro Glu Val Thr Thr	Val Thr Lys Asp Ser	Met Ile Val Val Trp				
	16250		16255		16260	
gaa aga cca gca tct	gat ggt ggt agt gaa	att ctt gga tat gtt	48957			
Glu Arg Pro Ala Ser	Asp Gly Gly Ser Glu	Ile Leu Gly Tyr Val				
	16265		16270		16275	
ctt gag aaa cgg gat	aaa gaa ggc att aga	tgg aca aga tgc cat	49002			
Leu Glu Lys Arg Asp	Lys Glu Gly Ile Arg	Trp Thr Arg Cys His				
	16280		16285		16290	
aag cgt ctg att gga	gag ttg cgc ctg aga	gta act gga ctc ata	49047			
Lys Arg Leu Ile Gly	Glu Leu Arg Leu Arg	Val Thr Gly Leu Ile				
	16295		16300		16305	
gaa aat cac gat tat	gag ttc aga gtt tct	gct gag aat gct gct	49092			
Glu Asn His Asp Tyr	Glu Phe Arg Val Ser	Ala Glu Asn Ala Ala				
	16310		16315		16320	
gga ctt agt gaa cca	agc cct cct tct gct	tac caa aag gct tgt	49137			
Gly Leu Ser Glu Pro	Ser Pro Pro Ser Ala	Tyr Gln Lys Ala Cys				
	16325		16330		16335	
gat cct att tat aaa	cca gga ccc cca aac	aac ccc aaa gtc ata	49182			
Asp Pro Ile Tyr Lys	Pro Gly Pro Pro Asn	Asn Pro Lys Val Ile				
	16340		16345		16350	
gac ata acc aga tct	tca gta ttc ctt tct	tgg agc aaa cca ata	49227			
Asp Ile Thr Arg Ser	Ser Val Phe Leu Ser	Trp Ser Lys Pro Ile				
	16355		16360		16365	

tat gat ggt ggc tgt	gaa att caa gga tac	att gtt gaa aaa tgt	49272
Tyr Asp Gly Gly Cys	Glu Ile Gln Gly Tyr	Ile Val Glu Lys Cys	
16370	16375	16380	
gat gtg aat gtt ggt	gaa tgg aca atg tgc	act cca cca aca gga	49317
Asp Val Asn Val Gly	Glu Trp Thr Met Cys	Thr Pro Pro Thr Gly	
16385	16390	16395	
att aat aaa aca aac	ata gaa gta gag aag	ctg ttg gaa aag cat	49362
Ile Asn Lys Thr Asn	Ile Glu Val Glu Lys	Leu Leu Glu Lys His	
16400	16405	16410	
gaa tac aac ttc cgt	atc tgt gct att aat	aaa gct gga gtt gga	49407
Glu Tyr Asn Phe Arg	Ile Cys Ala Ile Asn	Lys Ala Gly Val Gly	
16415	16420	16425	
gaa cat gct gac gtc	cct gga cct att ata	gtt gaa gaa aaa tta	49452
Glu His Ala Asp Val	Pro Gly Pro Ile Ile	Val Glu Glu Lys Leu	
16430	16435	16440	
gaa gca cca gac att	gat ctt gac cta gaa	cta agg aaa atc ata	49497
Glu Ala Pro Asp Ile	Asp Leu Asp Leu Glu	Leu Arg Lys Ile Ile	
16445	16450	16455	
aat ata agg gca ggt	ggc tcc tta agg tta	ttt gtt cct ata aaa	49542
Asn Ile Arg Ala Gly	Gly Ser Leu Arg Leu	Phe Val Pro Ile Lys	
16460	16465	16470	
ggt cgt cct aca cca	gaa gtt aaa tgg gga	aag gtg gat ggt gaa	49587
Gly Arg Pro Thr Pro	Glu Val Lys Trp Gly	Lys Val Asp Gly Glu	
16475	16480	16485	
atc cga gat gca gct	ata att gat gtc act	agc agt ttc acc tct	49632
Ile Arg Asp Ala Ala	Ile Ile Asp Val Thr	Ser Ser Phe Thr Ser	
16490	16495	16500	
ctt gtt ctt gac aat	gtc aac cga tat gat	agt gga aaa tat acg	49677
Leu Val Leu Asp Asn	Val Asn Arg Tyr Asp	Ser Gly Lys Tyr Thr	
16505	16510	16515	
ctt aca tta gaa aac	agc agt gga aca aag	tct gcc ttt gtt act	49722
Leu Thr Leu Glu Asn	Ser Ser Gly Thr Lys	Ser Ala Phe Val Thr	
16520	16525	16530	
gtg aga gtt ctg gac	acg cca agt cca cct	gtt aac ctg aaa gtc	49767
Val Arg Val Leu Asp	Thr Pro Ser Pro Pro	Val Asn Leu Lys Val	
16535	16540	16545	
aca gaa atc acc aaa	gac tca gta tca att	aca tgg gaa cct cct	49812
Thr Glu Ile Thr Lys	Asp Ser Val Ser Ile	Thr Trp Glu Pro Pro	
16550	16555	16560	
ttg ttg gat ggg gga	tcc aaa ata aaa aat	tac att gtt gag aaa	49857
Leu Leu Asp Gly Gly	Ser Lys Ile Lys Asn	Tyr Ile Val Glu Lys	
16565	16570	16575	
cgt gaa gcc aca aga	aaa tca tat gct gct	gtt gta act aac tgc	49902
Arg Glu Ala Thr Arg	Lys Ser Tyr Ala Ala	Val Val Thr Asn Cys	

16580					16585					16590					
cat aag aat tct tgg	aaa atc gat cag ctc	caa gaa ggt tgc agt	49947												
His Lys Asn Ser Trp	Lys Ile Asp Gln Leu	Gln Glu Gly Cys Ser													
16595	16600	16605													
tat tac ttt aga gtc	aca gct gag aat gag	tat ggt att ggc ctt	49992												
Tyr Tyr Phe Arg Val	Thr Ala Glu Asn Glu	Tyr Gly Ile Gly Leu													
16610	16615	16620													
cct gcc cag act gct	gat cca att aag gtt	gca gaa gtg cca caa	50037												
Pro Ala Gln Thr Ala	Asp Pro Ile Lys Val	Ala Glu Val Pro Gln													
16625	16630	16635													
cct cct gga aaa ata	act gtg gat gat gtc	acc aga aac agt gtc	50082												
Pro Pro Gly Lys Ile	Thr Val Asp Asp Val	Thr Arg Asn Ser Val													
16640	16645	16650													
tct ctg agt tgg aca	aaa cct gaa cat gat	ggc ggc agt aaa atc	50127												
Ser Leu Ser Trp Thr	Lys Pro Glu His Asp	Gly Gly Ser Lys Ile													
16655	16660	16665													
att cag tat att gtg	gaa atg caa gct aaa	cac agt gag aaa tgg	50172												
Ile Gln Tyr Ile Val	Glu Met Gln Ala Lys	His Ser Glu Lys Trp													
16670	16675	16680													
tca gag tgt gct cga	gta aag tct ctt cag	gca gta att acc aac	50217												
Ser Glu Cys Ala Arg	Val Lys Ser Leu Gln	Ala Val Ile Thr Asn													
16685	16690	16695													
cta act caa ggg gaa	gaa tat ctt ttt aga	gtt gtt gct gta aat	50262												
Leu Thr Gln Gly Glu	Glu Tyr Leu Phe Arg	Val Val Ala Val Asn													
16700	16705	16710													
gaa aag ggg aga agt	gat cct cgg tcc ctt	gca gtt cca ata gtt	50307												
Glu Lys Gly Arg Ser	Asp Pro Arg Ser Leu	Ala Val Pro Ile Val													
16715	16720	16725													
gcc aaa gat ctg gta	att gag cca gat gta	aaa cct gca ttc agt	50352												
Ala Lys Asp Leu Val	Ile Glu Pro Asp Val	Lys Pro Ala Phe Ser													
16730	16735	16740													
agt tac agt gta cag	gtt ggc caa gat ttg	aaa ata gaa gtg cca	50397												
Ser Tyr Ser Val Gln	Val Gly Gln Asp Leu	Lys Ile Glu Val Pro													
16745	16750	16755													
att tct gga cgt cct	aag cca acc att acc	tgg act aaa gat ggt	50442												
Ile Ser Gly Arg Pro	Lys Pro Thr Ile Thr	Trp Thr Lys Asp Gly													
16760	16765	16770													
ctc cca ctg aag cag	acc aca aga atc aat	gtt acc gat tca ctg	50487												
Leu Pro Leu Lys Gln	Thr Thr Arg Ile Asn	Val Thr Asp Ser Leu													
16775	16780	16785													
gat ctc acc aca ctc	agt att aaa gaa act	cat aag gat gat ggt	50532												
Asp Leu Thr Thr Leu	Ser Ile Lys Glu Thr	His Lys Asp Asp Gly													
16790	16795	16800													

gga caa tat gga atc	aca gtt gcc aat gtt	gtt ggt cag aag aca	50577
Gly Gln Tyr Gly Ile	Thr Val Ala Asn Val	Val Gly Gln Lys Thr	
16805	16810	16815	
gca tcc atc gaa att	gta act cta gat aaa	cct gat cct cca aaa	50622
Ala Ser Ile Glu Ile	Val Thr Leu Asp Lys	Pro Asp Pro Pro Lys	
16820	16825	16830	
gga cct gtt aaa ttt	gat gac gtc agt gct	gaa agt att aca tta	50667
Gly Pro Val Lys Phe	Asp Asp Val Ser Ala	Glu Ser Ile Thr Leu	
16835	16840	16845	
tct tgg aac cct cca	tta tat aca ggg ggc	tgc caa atc acc aac	50712
Ser Trp Asn Pro Pro	Leu Tyr Thr Gly Gly	Cys Gln Ile Thr Asn	
16850	16855	16860	
tac att gtt cag aaa	aga gat aca acc acc	aca gta tgg gat gtt	50757
Tyr Ile Val Gln Lys	Arg Asp Thr Thr Thr	Thr Val Trp Asp Val	
16865	16870	16875	
gtt tct gct act gtt	gct aga act aca ctc	aaa gtg acc aaa ctg	50802
Val Ser Ala Thr Val	Ala Arg Thr Thr Leu	Lys Val Thr Lys Leu	
16880	16885	16890	
aaa act ggt aca gaa	tac caa ttt aga ata	ttt gcc gaa aac aga	50847
Lys Thr Gly Thr Glu	Tyr Gln Phe Arg Ile	Phe Ala Glu Asn Arg	
16895	16900	16905	
tat gga caa agc ttt	gcc tta gag tct gat	cca att gta gct caa	50892
Tyr Gly Gln Ser Phe	Ala Leu Glu Ser Asp	Pro Ile Val Ala Gln	
16910	16915	16920	
tat ccc tac aaa gaa	cca ggc cct cca ggt	aca cca ttt gcc aca	50937
Tyr Pro Tyr Lys Glu	Pro Gly Pro Pro Gly	Thr Pro Phe Ala Thr	
16925	16930	16935	
gcc att tcc aaa gac	tcc atg gtc ata cag	tgg cat gaa cca gtc	50982
Ala Ile Ser Lys Asp	Ser Met Val Ile Gln	Trp His Glu Pro Val	
16940	16945	16950	
aac aat ggt gga agc	ccc gtc ata ggt tac	cac ctg gag aga aaa	51027
Asn Asn Gly Gly Ser	Pro Val Ile Gly Tyr	His Leu Glu Arg Lys	
16955	16960	16965	
gaa aga aac agt att	ttg tgg aca aag gtc	aac aaa act att att	51072
Glu Arg Asn Ser Ile	Leu Trp Thr Lys Val	Asn Lys Thr Ile Ile	
16970	16975	16980	
cat gac acc caa ttc	aaa gca cag aat ctt	gaa gaa ggc att gaa	51117
His Asp Thr Gln Phe	Lys Ala Gln Asn Leu	Glu Glu Gly Ile Glu	
16985	16990	16995	
tat gaa ttc aga gtg	tat gct gaa aat att	gtt ggt gta ggc aaa	51162
Tyr Glu Phe Arg Val	Tyr Ala Glu Asn Ile	Val Gly Val Gly Lys	
17000	17005	17010	
gca agc aag aat tct	gaa tgc tat gta gcc	aga gat ccc tgt gac	51207
Ala Ser Lys Asn Ser	Glu Cys Tyr Val Ala	Arg Asp Pro Cys Asp	

17015					17020					17025					
cca cca gga acc cca	gaa cca ata atg gtt	aaa aga aat gaa atc	51252												
Pro Pro Gly Thr Pro	Glu Pro Ile Met Val	Lys Arg Asn Glu Ile													
17030	17035	17040													
act tta cag tgg acc	aaa cct gtg tat gat	ggg gga agt atg att	51297												
Thr Leu Gln Trp Thr	Lys Pro Val Tyr Asp	Gly Gly Ser Met Ile													
17045	17050	17055													
aca ggc tac att gta	gag aaa cgt gat ttg	cct gat ggt cgt tgg	51342												
Thr Gly Tyr Ile Val	Glu Lys Arg Asp Leu	Pro Asp Gly Arg Trp													
17060	17065	17070													
atg aaa gct agc ttt	aca aat gtc att gaa	act caa ttt act gtg	51387												
Met Lys Ala Ser Phe	Thr Asn Val Ile Glu	Thr Gln Phe Thr Val													
17075	17080	17085													
tca ggt ctt act gaa	gat caa aga tat gaa	ttc aga gtc att gca	51432												
Ser Gly Leu Thr Glu	Asp Gln Arg Tyr Glu	Phe Arg Val Ile Ala													
17090	17095	17100													
aag aat gca gct ggt	gca ata agt aaa ccc	tct gac agt act gga	51477												
Lys Asn Ala Ala Gly	Ala Ile Ser Lys Pro	Ser Asp Ser Thr Gly													
17105	17110	17115													
cca ata act gcc aag	gat gag gtt gaa ctc	cca aga att tca atg	51522												
Pro Ile Thr Ala Lys	Asp Glu Val Glu Leu	Pro Arg Ile Ser Met													
17120	17125	17130													
gat cca aaa ttc aga	gac aca att gtg gta	aat gct gga gaa aca	51567												
Asp Pro Lys Phe Arg	Asp Thr Ile Val Val	Asn Ala Gly Glu Thr													
17135	17140	17145													
ttc aga ctt gag gct	gat gtc cat gga aag	ccc cta cct acc att	51612												
Phe Arg Leu Glu Ala	Asp Val His Gly Lys	Pro Leu Pro Thr Ile													
17150	17155	17160													
gag tgg tta aga gga	gat aag gaa att gaa	gaa tct gct aga tgt	51657												
Glu Trp Leu Arg Gly	Asp Lys Glu Ile Glu	Glu Ser Ala Arg Cys													
17165	17170	17175													
gaa ata aag aac aca	gat ttc aag gct tta	ctt att gta aaa gat	51702												
Glu Ile Lys Asn Thr	Asp Phe Lys Ala Leu	Leu Ile Val Lys Asp													
17180	17185	17190													
gca att aga att gat	ggg ggg cag tat att	tta aga gct tcc aat	51747												
Ala Ile Arg Ile Asp	Gly Gly Gln Tyr Ile	Leu Arg Ala Ser Asn													
17195	17200	17205													
gtt gca ggt tct aag	tca ttc cca gta aat	gta aaa gta tta gat	51792												
Val Ala Gly Ser Lys	Ser Phe Pro Val Asn	Val Lys Val Leu Asp													
17210	17215	17220													
aga cca gga cct cca	gaa ggg cca gtc cag	gtt act gga gtc act	51837												
Arg Pro Gly Pro Pro	Glu Gly Pro Val Gln	Val Thr Gly Val Thr													
17225	17230	17235													

tct gaa aaa tgc tct	tta aca tgg tct cca	cca ctt caa gat ggt	51882
Ser Glu Lys Cys Ser	Leu Thr Trp Ser Pro	Pro Leu Gln Asp Gly	
17240	17245	17250	
ggc agt gac att tct	cac tat gtt gtt gaa	aag cga gaa acc agt	51927
Gly Ser Asp Ile Ser	His Tyr Val Val Glu	Lys Arg Glu Thr Ser	
17255	17260	17265	
cga ctt gcc tgg act	gtt gtt gct tca gaa	gtt gtg acc aat tct	51972
Arg Leu Ala Trp Thr	Val Val Ala Ser Glu	Val Val Thr Asn Ser	
17270	17275	17280	
ctg aaa gtt acc aaa	ctc tta gaa ggt aat	gaa tat gtt ttc cgt	52017
Leu Lys Val Thr Lys	Leu Leu Glu Gly Asn	Glu Tyr Val Phe Arg	
17285	17290	17295	
ata atg gct gtc aac	aaa tat ggt gtt gga	gag cct ttg gaa tct	52062
Ile Met Ala Val Asn	Lys Tyr Gly Val Gly	Glu Pro Leu Glu Ser	
17300	17305	17310	
gca cca gta cta atg	aaa aat cca ttt gtg	ctt cct gga cca cca	52107
Ala Pro Val Leu Met	Lys Asn Pro Phe Val	Leu Pro Gly Pro Pro	
17315	17320	17325	
aaa agc ttg gaa gtc	aca aat att gcc aaa	gac tcc atg acc gtc	52152
Lys Ser Leu Glu Val	Thr Asn Ile Ala Lys	Asp Ser Met Thr Val	
17330	17335	17340	
tgt tgg aac cgt cca	gat agt gat ggt gga	agt gag att att ggt	52197
Cys Trp Asn Arg Pro	Asp Ser Asp Gly Gly	Ser Glu Ile Ile Gly	
17345	17350	17355	
tac att gta gag aaa	aga gac aga agt gcc	att cga tgg ata aaa	52242
Tyr Ile Val Glu Lys	Arg Asp Arg Ser Gly	Ile Arg Trp Ile Lys	
17360	17365	17370	
tgt aat aaa cgc cgc	att aca gat ttg cgt	cta aga gtg aca gga	52287
Cys Asn Lys Arg Arg	Ile Thr Asp Leu Arg	Leu Arg Val Thr Gly	
17375	17380	17385	
tta aca gaa gat cat	gag tat gaa ttc agg	gtc tct gca gaa aat	52332
Leu Thr Glu Asp His	Glu Tyr Glu Phe Arg	Val Ser Ala Glu Asn	
17390	17395	17400	
gct gct gga gtt ggg	gaa cca agt cca gct	aca gtt tat tat aaa	52377
Ala Ala Gly Val Gly	Glu Pro Ser Pro Ala	Thr Val Tyr Tyr Lys	
17405	17410	17415	
gcc tgt gat cct gtg	ttc aaa cct gcc cca	cct acc aat gca cac	52422
Ala Cys Asp Pro Val	Phe Lys Pro Gly Pro	Pro Thr Asn Ala His	
17420	17425	17430	
att gta gac acc act	aaa aat tca atc aca	ctt gcc tgg ggt aaa	52467
Ile Val Asp Thr Thr	Lys Asn Ser Ile Thr	Leu Ala Trp Gly Lys	
17435	17440	17445	
ccc atc tat gat ggc	ggc agt gag atc ttg	gga tat gta gta gaa	52512
Pro Ile Tyr Asp Gly	Gly Ser Glu Ile Leu	Gly Tyr Val Val Glu	

17450					17455					17460					
atc	tgt	aaa	gca	gat	gaa	gaa	gaa	tgg	caa	ata	gtt	act	cca	cag	52557
Ile	Cys	Lys	Ala	Asp	Glu	Glu	Glu	Trp	Gln	Ile	Val	Thr	Pro	Gln	
				17465					17470					17475	
act	ggc	ctg	aga	gtc	act	cga	ttt	gaa	att	tca	aaa	ctc	act	gaa	52602
Thr	Gly	Leu	Arg	Val	Thr	Arg	Phe	Glu	Ile	Ser	Lys	Leu	Thr	Glu	
				17480					17485					17490	
cac	caa	gag	tat	aaa	ata	cga	gtc	tgt	gcc	ctc	aac	aaa	gtt	ggc	52647
His	Gln	Glu	Tyr	Lys	Ile	Arg	Val	Cys	Ala	Leu	Asn	Lys	Val	Gly	
				17495					17500					17505	
tta	ggc	gag	gct	aca	tca	gtt	cct	ggc	act	gtg	aaa	cca	gaa	gat	52692
Leu	Gly	Glu	Ala	Thr	Ser	Val	Pro	Gly	Thr	Val	Lys	Pro	Glu	Asp	
				17510					17515					17520	
aaa	ctt	gaa	gca	cct	gaa	ctt	gac	ctt	gac	tcc	gaa	tta	aga	aaa	52737
Lys	Leu	Glu	Ala	Pro	Glu	Leu	Asp	Leu	Asp	Ser	Glu	Leu	Arg	Lys	
				17525					17530					17535	
gga	att	gtt	gta	aga	gct	ggc	gga	tct	gcc	aga	att	cac	att	cca	52782
Gly	Ile	Val	Val	Arg	Ala	Gly	Gly	Ser	Ala	Arg	Ile	His	Ile	Pro	
				17540					17545					17550	
ttc	aaa	ggc	cgt	cca	atg	cct	gag	atc	act	tgg	tct	cga	gag	gaa	52827
Phe	Lys	Gly	Arg	Pro	Met	Pro	Glu	Ile	Thr	Trp	Ser	Arg	Glu	Glu	
				17555					17560					17565	
ggc	gaa	ttc	aca	gat	aag	gtc	caa	att	gaa	aag	gga	gta	aac	tat	52872
Gly	Glu	Phe	Thr	Asp	Lys	Val	Gln	Ile	Glu	Lys	Gly	Val	Asn	Tyr	
				17570					17575					17580	
acc	caa	cta	tca	ata	gat	aac	tgt	gat	aga	aat	gat	gct	gga	aaa	52917
Thr	Gln	Leu	Ser	Ile	Asp	Asn	Cys	Asp	Arg	Asn	Asp	Ala	Gly	Lys	
				17585					17590					17595	
tac	att	ctt	aag	ttg	gaa	aac	agc	agt	gga	tca	aag	tct	gct	ttt	52962
Tyr	Ile	Leu	Lys	Leu	Glu	Asn	Ser	Ser	Gly	Ser	Lys	Ser	Ala	Phe	
				17600					17605					17610	
gta	act	gtg	aaa	gtt	ctt	gac	act	cca	gga	cca	cca	cag	aat	ttg	53007
Val	Thr	Val	Lys	Val	Leu	Asp	Thr	Pro	Gly	Pro	Pro	Gln	Asn	Leu	
				17615					17620					17625	
gca	gtc	aaa	gaa	gtg	aga	aaa	gat	tct	gcc	ttc	ctg	gta	tgg	gag	53052
Ala	Val	Lys	Glu	Val	Arg	Lys	Asp	Ser	Ala	Phe	Leu	Val	Trp	Glu	
				17630					17635					17640	
cca	ccc	atc	att	gat	gga	ggg	gca	aag	gtc	aag	aac	tat	gtg	att	53097
Pro	Pro	Ile	Ile	Asp	Gly	Gly	Ala	Lys	Val	Lys	Asn	Tyr	Val	Ile	
				17645					17650					17655	
gac	aaa	cgt	gag	tca	acc	aga	aaa	gcg	tat	gct	aat	gtg	agt	agt	53142
Asp	Lys	Arg	Glu	Ser	Thr	Arg	Lys	Ala	Tyr	Ala	Asn	Val	Ser	Ser	
				17660					17665					17670	

aaa tgc agc aaa aca	agt ttt aaa gtg gaa	aac ctt aca gaa gga	53187
Lys Cys Ser Lys Thr	Ser Phe Lys Val Glu	Asn Leu Thr Glu Gly	
17675	17680	17685	
gcc att tat tac ttc	aga gtc atg gct gaa	aat gaa ttt gga gtt	53232
Ala Ile Tyr Tyr Phe	Arg Val Met Ala Glu	Asn Glu Phe Gly Val	
17690	17695	17700	
ggt gtt cca gtg gaa	act gtt gat gcc gtg	aaa gct gct gaa cct	53277
Gly Val Pro Val Glu	Thr Val Asp Ala Val	Lys Ala Ala Glu Pro	
17705	17710	17715	
cct tcc cca cca gga	aag gtt aca ctc act	gat gtg tcc cag acc	53322
Pro Ser Pro Pro Gly	Lys Val Thr Leu Thr	Asp Val Ser Gln Thr	
17720	17725	17730	
agt gca tca ctt atg	tgg gag aaa cct gaa	cat gat ggc ggt agc	53367
Ser Ala Ser Leu Met	Trp Glu Lys Pro Glu	His Asp Gly Gly Ser	
17735	17740	17745	
aga gtc ctg ggg tac	gtt gtt gaa atg cag	ccc aaa gga act gaa	53412
Arg Val Leu Gly Tyr	Val Val Glu Met Gln	Pro Lys Gly Thr Glu	
17750	17755	17760	
aaa tgg agc att gtg	gct gaa tcc aaa gtc	tgt aat gca gtt gtt	53457
Lys Trp Ser Ile Val	Ala Glu Ser Lys Val	Cys Asn Ala Val Val	
17765	17770	17775	
act ggt ttg agt tct	gga caa gaa tat cag	ttc cgt gtc aag gct	53502
Thr Gly Leu Ser Ser	Gly Gln Glu Tyr Gln	Phe Arg Val Lys Ala	
17780	17785	17790	
tat aat gag aaa gga	aaa agc gat cca aga	gtg ttg ggt gtt cct	53547
Tyr Asn Glu Lys Gly	Lys Ser Asp Pro Arg	Val Leu Gly Val Pro	
17795	17800	17805	
gtc ata gcc aag gac	ttg act ata cag cct	agt tta aag tta cca	53592
Val Ile Ala Lys Asp	Leu Thr Ile Gln Pro	Ser Leu Lys Leu Pro	
17810	17815	17820	
ttt aac aca tat agt	atc caa gct gga gaa	gat ctt aaa ata gaa	53637
Phe Asn Thr Tyr Ser	Ile Gln Ala Gly Glu	Asp Leu Lys Ile Glu	
17825	17830	17835	
att cca gtt ata ggc	cga cca aga cct aac	att tct tgg gtc aaa	53682
Ile Pro Val Ile Gly	Arg Pro Arg Pro Asn	Ile Ser Trp Val Lys	
17840	17845	17850	
gat ggt gag cct ctt	aaa cag aca aca aga	gta aac gtt gaa gaa	53727
Asp Gly Glu Pro Leu	Lys Gln Thr Thr Arg	Val Asn Val Glu Glu	
17855	17860	17865	
aca gct acc tca act	gtt ttg cac att aaa	gaa ggt aac aaa gat	53772
Thr Ala Thr Ser Thr	Val Leu His Ile Lys	Glu Gly Asn Lys Asp	
17870	17875	17880	
gac ttt gga aaa tac	acc gta acg gca aca	aat agt gca ggc aca	53817
Asp Phe Gly Lys Tyr	Thr Val Thr Ala Thr	Asn Ser Ala Gly Thr	

17885					17890					17895					
gca	aca	gaa	aat	ctc	agt	gtt	atc	gtt	tta	gaa	aag	cct	gga	cct	53862
Ala	Thr	Glu	Asn	Leu	Ser	Val	Ile	Val	Leu	Glu	Lys	Pro	Gly	Pro	
				17900					17905					17910	
cca	gtt	ggc	cca	gtt	cgg	ttt	gat	gaa	gtt	agt	gca	gac	ttt	gta	53907
Pro	Val	Gly	Pro	Val	Arg	Phe	Asp	Glu	Val	Ser	Ala	Asp	Phe	Val	
				17915					17920					17925	
gtc	ata	tct	tgg	gaa	cct	cca	gcc	tat	act	ggt	ggc	tgc	caa	ata	53952
Val	Ile	Ser	Trp	Glu	Pro	Pro	Ala	Tyr	Thr	Gly	Gly	Cys	Gln	Ile	
				17930					17935					17940	
agc	aac	tac	att	gta	gag	aag	cga	gat	aca	acc	acc	acc	act	tgg	53997
Ser	Asn	Tyr	Ile	Val	Glu	Lys	Arg	Asp	Thr	Thr	Thr	Thr	Thr	Trp	
				17945					17950					17955	
cac	atg	gta	tca	gca	aca	gtt	gca	aga	aca	aca	att	aaa	ata	acc	54042
His	Met	Val	Ser	Ala	Thr	Val	Ala	Arg	Thr	Thr	Ile	Lys	Ile	Thr	
				17960					17965					17970	
aaa	ctg	aaa	aca	ggc	acg	gag	tac	cag	ttt	aga	att	ttt	gct	gaa	54087
Lys	Leu	Lys	Thr	Gly	Thr	Glu	Tyr	Gln	Phe	Arg	Ile	Phe	Ala	Glu	
				17975					17980					17985	
aac	agg	tat	gga	aaa	agt	gcc	cca	ctg	gat	tct	aag	gca	gtt	att	54132
Asn	Arg	Tyr	Gly	Lys	Ser	Ala	Pro	Leu	Asp	Ser	Lys	Ala	Val	Ile	
				17990					17995					18000	
gta	caa	tat	cca	ttt	aaa	gaa	cct	gga	cca	cct	gga	act	cct	ttt	54177
Val	Gln	Tyr	Pro	Phe	Lys	Glu	Pro	Gly	Pro	Pro	Gly	Thr	Pro	Phe	
				18005					18010					18015	
gtg	aca	tca	atc	tca	aaa	gat	cag	atg	ctt	gtg	caa	tgg	cat	gag	54222
Val	Thr	Ser	Ile	Ser	Lys	Asp	Gln	Met	Leu	Val	Gln	Trp	His	Glu	
				18020					18025					18030	
cca	gtg	aat	gat	gga	ggc	acc	aaa	att	att	ggc	tac	cat	ctt	gaa	54267
Pro	Val	Asn	Asp	Gly	Gly	Thr	Lys	Ile	Ile	Gly	Tyr	His	Leu	Glu	
				18035					18040					18045	
cag	aaa	gaa	aag	aac	agt	att	tta	tgg	gtc	aag	tta	aat	aag	acc	54312
Gln	Lys	Glu	Lys	Asn	Ser	Ile	Leu	Trp	Val	Lys	Leu	Asn	Lys	Thr	
				18050					18055					18060	
ccc	att	cag	gac	acc	aaa	ttc	aaa	aca	act	ggg	ctt	gat	gag	ggc	54357
Pro	Ile	Gln	Asp	Thr	Lys	Phe	Lys	Thr	Thr	Gly	Leu	Asp	Glu	Gly	
				18065					18070					18075	
ctt	gag	tat	gag	ttc	aaa	gtt	tct	gct	gaa	aat	att	gtt	ggc	att	54402
Leu	Glu	Tyr	Glu	Phe	Lys	Val	Ser	Ala	Glu	Asn	Ile	Val	Gly	Ile	
				18080					18085					18090	
ggc	aag	cct	agc	aaa	gtg	tca	gaa	tgc	ttt	gtt	gct	cgt	gat	cca	54447
Gly	Lys	Pro	Ser	Lys	Val	Ser	Glu	Cys	Phe	Val	Ala	Arg	Asp	Pro	
				18095					18100					18105	

tgt gac cca cct ggt	cgc cct gaa gcc att	ggt att aca aga aac	54492
Cys Asp Pro Pro Gly	Arg Pro Glu Ala Ile	Val Ile Thr Arg Asn	
18110	18115	18120	
aat gtc aca ctg aaa	tgg aag aaa cct gcc	tat gat ggt ggt agc	54537
Asn Val Thr Leu Lys	Trp Lys Lys Pro Ala	Tyr Asp Gly Gly Ser	
18125	18130	18135	
aaa ata aca ggt tat	att gta gaa aag aaa	gat cta cct gat ggc	54582
Lys Ile Thr Gly Tyr	Ile Val Glu Lys Lys	Asp Leu Pro Asp Gly	
18140	18145	18150	
cgc tgg atg aaa gcc	agc ttt acc aac gta	tta gaa act gaa ttt	54627
Arg Trp Met Lys Ala	Ser Phe Thr Asn Val	Leu Glu Thr Glu Phe	
18155	18160	18165	
aca gtg agt gga ctt	gta gaa gac caa aga	tat gaa ttt aga gta	54672
Thr Val Ser Gly Leu	Val Glu Asp Gln Arg	Tyr Glu Phe Arg Val	
18170	18175	18180	
att gca aga aat gca	gct gga aac ttt agt	gaa cca tct gat agt	54717
Ile Ala Arg Asn Ala	Ala Gly Asn Phe Ser	Glu Pro Ser Asp Ser	
18185	18190	18195	
agt ggt gcc att act	gca aga gat gaa att	gat gca cca aat gcc	54762
Ser Gly Ala Ile Thr	Ala Arg Asp Glu Ile	Asp Ala Pro Asn Ala	
18200	18205	18210	
tct ctg gat cca aaa	tat aaa gat gtc atc	ggt gtt cat gca gga	54807
Ser Leu Asp Pro Lys	Tyr Lys Asp Val Ile	Val Val His Ala Gly	
18215	18220	18225	
gag act ttt gtt ctt	gaa gcc gac atc cgt	ggc aaa cct ata cct	54852
Glu Thr Phe Val Leu	Glu Ala Asp Ile Arg	Gly Lys Pro Ile Pro	
18230	18235	18240	
gat gtt gtt tgg tca	aaa gat gga aaa gaa	ctt gaa gaa aca gct	54897
Asp Val Val Trp Ser	Lys Asp Gly Lys Glu	Leu Glu Glu Thr Ala	
18245	18250	18255	
gct aga atg gaa att	aaa tct act att cag	aaa aca act ctt gtt	54942
Ala Arg Met Glu Ile	Lys Ser Thr Ile Gln	Lys Thr Thr Leu Val	
18260	18265	18270	
gtc aaa gac tgt ata	cgg act gat gga gga	caa tat att ctg aaa	54987
Val Lys Asp Cys Ile	Arg Thr Asp Gly Gly	Gln Tyr Ile Leu Lys	
18275	18280	18285	
ctc agc aat gtt ggt	ggt aca aag tct ata	ccc atc act gta aag	55032
Leu Ser Asn Val Gly	Gly Thr Lys Ser Ile	Pro Ile Thr Val Lys	
18290	18295	18300	
gta ctt gac agg cca	ggg tct cct gaa ggg	cct ctg aaa gtt act	55077
Val Leu Asp Arg Pro	Gly Ser Pro Glu Gly	Pro Leu Lys Val Thr	
18305	18310	18315	
gga gtt act gcg gaa	aaa tgt tac ctg gca	tgg aac cca cct ttg	55122
Gly Val Thr Ala Glu	Lys Cys Tyr Leu Ala	Trp Asn Pro Pro Leu	

18320	18325	18330	
caa gat ggt ggt gct Gln Asp Gly Gly Ala 18335	aat att tca cat tac Asn Ile Ser His Tyr 18340	atc att gaa aag agg Ile Ile Glu Lys Arg 18345	55167
gag aca agc cga ctc Glu Thr Ser Arg Leu 18350	tct tgg acc cag gtt Ser Trp Thr Gln Val 18355	tca act gag gta cag Ser Thr Glu Val Gln 18360	55212
gcc ctt aac tac aaa Ala Leu Asn Tyr Lys 18365	gtt act aaa ctt ctt Val Thr Lys Leu Leu 18370	cct ggt aat gag tac Pro Gly Asn Glu Tyr 18375	55257
att ttc cgt gtc atg Ile Phe Arg Val Met 18380	gct gtg aat aaa tat Ala Val Asn Lys Tyr 18385	gga att gga gag ccc Gly Ile Gly Glu Pro 18390	55302
ttg gaa tct ggg cct Leu Glu Ser Gly Pro 18395	gtt acg gcc tgt aat Val Thr Ala Cys Asn 18400	cct tat aag cca cca Pro Tyr Lys Pro Pro 18405	55347
ggt cct ccc tca aca Gly Pro Pro Ser Thr 18410	cct gaa gtc tca gca Pro Glu Val Ser Ala 18415	atc acc aaa gat tct Ile Thr Lys Asp Ser 18420	55392
atg gta gta aca tgg Met Val Val Thr Trp 18425	gca cgc cca gta gac Ala Arg Pro Val Asp 18430	gac gga ggt acc gaa Asp Gly Gly Thr Glu 18435	55437
att gag ggc tac att Ile Glu Gly Tyr Ile 18440	ctt gaa aaa cga gat Leu Glu Lys Arg Asp 18445	aag gaa ggc gtt aga Lys Glu Gly Val Arg 18450	55482
tgg acc aag tgc aac Trp Thr Lys Cys Asn 18455	aag aaa aca tta acg Lys Lys Thr Leu Thr 18460	gat ctg cgg ctc agg Asp Leu Arg Leu Arg 18465	55527
gta act ggt ctt acc Val Thr Gly Leu Thr 18470	gaa ggc cat tcc tat Glu Gly His Ser Tyr 18475	gaa ttc aga gtt gct Glu Phe Arg Val Ala 18480	55572
gct gaa aat gca gct Ala Glu Asn Ala Ala 18485	ggt gtg gga gaa cct Gly Val Gly Glu Pro 18490	agt gag cca tct gtt Ser Glu Pro Ser Val 18495	55617
ttc tac cgt gcg tgt Phe Tyr Arg Ala Cys 18500	gat gcc ttg tat cca Asp Ala Leu Tyr Pro 18505	cca ggt ccc cca agc Pro Gly Pro Pro Ser 18510	55662
aat cca aaa gtg acg Asn Pro Lys Val Thr 18515	gac act tcc aga tct Asp Thr Ser Arg Ser 18520	tct gtc tcc ctg gca Ser Val Ser Leu Ala 18525	55707
tgg agt aag cca att Trp Ser Lys Pro Ile 18530	tat gat ggt ggc gca Tyr Asp Gly Gly Ala 18535	cct gtt aaa ggc tat Pro Val Lys Gly Tyr 18540	55752

gtt gta gag gtc aaa	gaa gct gct gcg gat	gaa tgg aca acc tgc	55797
Val Val Glu Val Lys	Glu Ala Ala Ala Asp	Glu Trp Thr Thr Cys	
18545	18550	18555	
act cca cca aca gga	tta caa gga aag cag	ttc aca gtg acc aag	55842
Thr Pro Pro Thr Gly	Leu Gln Gly Lys Gln	Phe Thr Val Thr Lys	
18560	18565	18570	
ctt aaa gaa aac act	gaa tat aac ttc cgt	att tgt gcc atc aat	55887
Leu Lys Glu Asn Thr	Glu Tyr Asn Phe Arg	Ile Cys Ala Ile Asn	
18575	18580	18585	
tct gaa ggt gta ggt	gaa cct gca act cta	cct ggc tca gtg gtt	55932
Ser Glu Gly Val Gly	Glu Pro Ala Thr Leu	Pro Gly Ser Val Val	
18590	18595	18600	
gct cag gag agg ata	gag cca cca gaa ata	gaa ctc gat gct gat	55977
Ala Gln Glu Arg Ile	Glu Pro Pro Glu Ile	Glu Leu Asp Ala Asp	
18605	18610	18615	
ctc aga aag gtg gtc	gtt ctg cgt gca agt	gct act tta cgc tta	56022
Leu Arg Lys Val Val	Val Leu Arg Ala Ser	Ala Thr Leu Arg Leu	
18620	18625	18630	
ttt gtc act atc aaa	ggg cga cca gaa ccc	gaa gtt aaa tgg gaa	56067
Phe Val Thr Ile Lys	Gly Arg Pro Glu Pro	Glu Val Lys Trp Glu	
18635	18640	18645	
aag gca gaa ggc att	ctc act gac agg gct	cag ata gag gtg acc	56112
Lys Ala Glu Gly Ile	Leu Thr Asp Arg Ala	Gln Ile Glu Val Thr	
18650	18655	18660	
agc tca ttt aca atg	ttg gtg att gat aat	gtt acc aga ttt gac	56157
Ser Ser Phe Thr Met	Leu Val Ile Asp Asn	Val Thr Arg Phe Asp	
18665	18670	18675	
agt ggt cgg tat aat	ctg aca tta gaa aat	aat agt ggc tcc aaa	56202
Ser Gly Arg Tyr Asn	Leu Thr Leu Glu Asn	Asn Ser Gly Ser Lys	
18680	18685	18690	
aca gct ttt gtt aac	gtc aga gtt ctt gac	tca cca agt gcc cct	56247
Thr Ala Phe Val Asn	Val Arg Val Leu Asp	Ser Pro Ser Ala Pro	
18695	18700	18705	
gtg aat ttg acc ata	aga gaa gtg aag aaa	gac tca gtg acg ttg	56292
Val Asn Leu Thr Ile	Arg Glu Val Lys Lys	Asp Ser Val Thr Leu	
18710	18715	18720	
tcc tgg gaa cca cca	ctt att gat ggt gga	gct aag att aca aac	56337
Ser Trp Glu Pro Pro	Leu Ile Asp Gly Gly	Ala Lys Ile Thr Asn	
18725	18730	18735	
tac att gtc gaa aaa	cga gaa act aca aga	aaa gcc tat gct acc	56382
Tyr Ile Val Glu Lys	Arg Glu Thr Thr Arg	Lys Ala Tyr Ala Thr	
18740	18745	18750	
att aca aat aat tgc	act aaa act act ttc	aga att gaa aat cta	56427
Ile Thr Asn Asn Cys	Thr Lys Thr Thr Phe	Arg Ile Glu Asn Leu	

	18755		18760		18765	
caa gaa gga tgt tct	tac tac ttc cga gtc	ttg gct tcc aat gaa	56472			
Gln Glu Gly Cys Ser	Tyr Tyr Phe Arg Val	Leu Ala Ser Asn Glu				
	18770	18775	18780			
tat ggg att ggt ttg	cca gct gaa aca aca	gaa ccc gtt aaa gtg	56517			
Tyr Gly Ile Gly Leu	Pro Ala Glu Thr Thr	Glu Pro Val Lys Val				
	18785	18790	18795			
tct gaa cca ccc ctc	cca cct gga aga gta	act ctt gtt gat gtg	56562			
Ser Glu Pro Pro Leu	Pro Pro Gly Arg Val	Thr Leu Val Asp Val				
	18800	18805	18810			
acc cgt aat aca gct	aca att aag tgg gag	aaa cca gaa agt gat	56607			
Thr Arg Asn Thr Ala	Thr Ile Lys Trp Glu	Lys Pro Glu Ser Asp				
	18815	18820	18825			
ggg agc agc aaa att	act ggt tat gtg gtt	gaa atg cag act aaa	56652			
Gly Gly Ser Lys Ile	Thr Gly Tyr Val Val	Glu Met Gln Thr Lys				
	18830	18835	18840			
ggg agt gaa aag tgg	agc acc tgc aca caa	gtt aag act cta gaa	56697			
Gly Ser Glu Lys Trp	Ser Thr Cys Thr Gln	Val Lys Thr Leu Glu				
	18845	18850	18855			
gca act ata tct ggc	tta act gca gga gaa	gag tat gtc ttc agg	56742			
Ala Thr Ile Ser Gly	Leu Thr Ala Gly Glu	Glu Tyr Val Phe Arg				
	18860	18865	18870			
gta gct gca gtt aac	gaa aag gga aga agt	gat cca aga caa ctt	56787			
Val Ala Ala Val Asn	Glu Lys Gly Arg Ser	Asp Pro Arg Gln Leu				
	18875	18880	18885			
gga gtg cca gta att	gca agg gat att gaa	ata aag cct tca gtt	56832			
Gly Val Pro Val Ile	Ala Arg Asp Ile Glu	Ile Lys Pro Ser Val				
	18890	18895	18900			
gag ctt cct ttc cat	act ttc aat gta aag	gct aga gaa caa ctt	56877			
Glu Leu Pro Phe His	Thr Phe Asn Val Lys	Ala Arg Glu Gln Leu				
	18905	18910	18915			
aag att gat gtg cca	ttc aaa gga aga cct	caa gct act gtg aac	56922			
Lys Ile Asp Val Pro	Phe Lys Gly Arg Pro	Gln Ala Thr Val Asn				
	18920	18925	18930			
tgg aga aaa gat ggt	cag act ctt aaa gag	aca act aga gtc aat	56967			
Trp Arg Lys Asp Gly	Gln Thr Leu Lys Glu	Thr Thr Arg Val Asn				
	18935	18940	18945			
gtt tct tct tca aag	act gta aca tca cta	tct att aag gaa gct	57012			
Val Ser Ser Ser Lys	Thr Val Thr Ser Leu	Ser Ile Lys Glu Ala				
	18950	18955	18960			
tca aag gaa gat gtt	gga act tat gaa tta	tgt gtt tca aac agt	57057			
Ser Lys Glu Asp Val	Gly Thr Tyr Glu Leu	Cys Val Ser Asn Ser				
	18965	18970	18975			

gct gga tcc ata aca	ggt cct att act ata	att gtc ctt gac aga	57102
Ala Gly Ser Ile Thr	Val Pro Ile Thr Ile	Ile Val Leu Asp Arg	
18980	18985	18990	
cca gga cct cca ggt	cct ata cgt att gat	gag gtt agt tgt gac	57147
Pro Gly Pro Pro Gly	Pro Ile Arg Ile Asp	Glu Val Ser Cys Asp	
18995	19000	19005	
agc ata acc att tct	tgg aat cct cca gaa	tat gat ggt ggc tgc	57192
Ser Ile Thr Ile Ser	Trp Asn Pro Pro Glu	Tyr Asp Gly Gly Cys	
19010	19015	19020	
caa att agc aat tac	att gtt gaa aag aaa	gaa acc acc tct aca	57237
Gln Ile Ser Asn Tyr	Ile Val Glu Lys Lys	Glu Thr Thr Ser Thr	
19025	19030	19035	
aca tgg cac ata gtt	tca caa gca gtt gca	aga aca tcc att aaa	57282
Thr Trp His Ile Val	Ser Gln Ala Val Ala	Arg Thr Ser Ile Lys	
19040	19045	19050	
ata gtt cgc ctg aca	aca gga agt gag tat	cag ttc cgt gtt tgt	57327
Ile Val Arg Leu Thr	Thr Gly Ser Glu Tyr	Gln Phe Arg Val Cys	
19055	19060	19065	
gca gaa aac cgc tat	gga aag agc tcc tac	agt gaa tct tca gct	57372
Ala Glu Asn Arg Tyr	Gly Lys Ser Ser Tyr	Ser Glu Ser Ser Ala	
19070	19075	19080	
gtt gtt gca gag tat	cca ttc agt ccc cca	ggg cct cct ggt act	57417
Val Val Ala Glu Tyr	Pro Phe Ser Pro Pro	Gly Pro Pro Gly Thr	
19085	19090	19095	
cct aaa gtt gtg cat	gcc aca aaa tct acc	atg ctt gta acc tgg	57462
Pro Lys Val Val His	Ala Thr Lys Ser Thr	Met Leu Val Thr Trp	
19100	19105	19110	
caa gtg cca gtt aat	gat gga gga agt cga	gta att ggc tat cat	57507
Gln Val Pro Val Asn	Asp Gly Gly Ser Arg	Val Ile Gly Tyr His	
19115	19120	19125	
ctt gag tat aaa gaa	aga agc agc att ctt	tgg tca aaa gca aat	57552
Leu Glu Tyr Lys Glu	Arg Ser Ser Ile Leu	Trp Ser Lys Ala Asn	
19130	19135	19140	
aaa atc ctc att gct	gat act caa gtg aaa	gtc tcc ggc ctt gat	57597
Lys Ile Leu Ile Ala	Asp Thr Gln Val Lys	Val Ser Gly Leu Asp	
19145	19150	19155	
gaa gga ctg atg tat	gag tat cgt gta tat	gct gaa aat att gct	57642
Glu Gly Leu Met Tyr	Glu Tyr Arg Val Tyr	Ala Glu Asn Ile Ala	
19160	19165	19170	
gga att ggt aaa tgc	agt aaa tct tgt gaa	cca gtc cct gca aga	57687
Gly Ile Gly Lys Cys	Ser Lys Ser Cys Glu	Pro Val Pro Ala Arg	
19175	19180	19185	
gat cct tgt gac cct	cct gga caa cct gaa	gtc aca aat atc aca	57732
Asp Pro Cys Asp Pro	Pro Gly Gln Pro Glu	Val Thr Asn Ile Thr	

19190					19195					19200					
aga	aaa	tca	gtg	tca	ctt	aaa	tgg	tct	aaa	cca	cat	tat	gat	ggg	57777
Arg	Lys	Ser	Val	Ser	Leu	Lys	Trp	Ser	Lys	Pro	His	Tyr	Asp	Gly	
				19205					19210					19215	
gga	gct	aag	atc	aca	gga	tac	att	gtt	gaa	cgc	aga	gaa	cta	cca	57822
Gly	Ala	Lys	Ile	Thr	Gly	Tyr	Ile	Val	Glu	Arg	Arg	Glu	Leu	Pro	
				19220					19225					19230	
gat	ggc	cgg	tgg	cta	aag	tgc	aat	tat	act	aat	ata	caa	gaa	aca	57867
Asp	Gly	Arg	Trp	Leu	Lys	Cys	Asn	Tyr	Thr	Asn	Ile	Gln	Glu	Thr	
				19235					19240					19245	
tac	ttt	gaa	gta	act	gaa	ctt	act	gaa	gat	cag	cgt	tat	gaa	ttc	57912
Tyr	Phe	Glu	Val	Thr	Glu	Leu	Thr	Glu	Asp	Gln	Arg	Tyr	Glu	Phe	
				19250					19255					19260	
cgg	gtt	ttt	gca	agg	aat	gct	gct	gac	tca	gtt	agt	gag	cca	tct	57957
Arg	Val	Phe	Ala	Arg	Asn	Ala	Ala	Asp	Ser	Val	Ser	Glu	Pro	Ser	
				19265					19270					19275	
gaa	tcc	act	ggg	cct	att	ata	gtt	aaa	gat	gat	gtt	gag	cct	cca	58002
Glu	Ser	Thr	Gly	Pro	Ile	Ile	Val	Lys	Asp	Asp	Val	Glu	Pro	Pro	
				19280					19285					19290	
aga	gtt	atg	atg	gat	gtc	aag	ttc	cga	gac	gtt	att	gtt	gtc	aaa	58047
Arg	Val	Met	Met	Asp	Val	Lys	Phe	Arg	Asp	Val	Ile	Val	Val	Lys	
				19295					19300					19305	
gct	gga	gag	gtc	ctt	aag	ata	aat	gca	gac	att	gca	ggg	cga	cct	58092
Ala	Gly	Glu	Val	Leu	Lys	Ile	Asn	Ala	Asp	Ile	Ala	Gly	Arg	Pro	
				19310					19315					19320	
ctg	cca	gta	att	tcc	tgg	gcc	aag	gat	ggg	ata	gaa	att	gaa	gaa	58137
Leu	Pro	Val	Ile	Ser	Trp	Ala	Lys	Asp	Gly	Ile	Glu	Ile	Glu	Glu	
				19325					19330					19335	
aga	gca	aga	aca	gaa	atc	atc	tca	aca	gac	aat	cat	act	ttg	tta	58182
Arg	Ala	Arg	Thr	Glu	Ile	Ile	Ser	Thr	Asp	Asn	His	Thr	Leu	Leu	
				19340					19345					19350	
aca	gtt	aaa	gac	tgt	ata	aga	cga	gac	act	ggg	caa	tat	gta	cta	58227
Thr	Val	Lys	Asp	Cys	Ile	Arg	Arg	Asp	Thr	Gly	Gln	Tyr	Val	Leu	
				19355					19360					19365	
aca	ctg	aag	aat	gtt	gcc	ggc	act	cgg	tct	gtg	gcc	gtt	aat	tgc	58272
Thr	Leu	Lys	Asn	Val	Ala	Gly	Thr	Arg	Ser	Val	Ala	Val	Asn	Cys	
				19370					19375					19380	
aaa	gta	ctt	gat	aag	cct	ggg	cca	cca	gca	gga	cca	ctt	gaa	ata	58317
Lys	Val	Leu	Asp	Lys	Pro	Gly	Pro	Pro	Ala	Gly	Pro	Leu	Glu	Ile	
				19385					19390					19395	
aat	ggc	ctc	act	gct	gag	aaa	tgc	tct	ctt	tcc	tgg	gga	cgt	ccc	58362
Asn	Gly	Leu	Thr	Ala	Glu	Lys	Cys	Ser	Leu	Ser	Trp	Gly	Arg	Pro	
				19400					19405					19410	

caa gaa gat ggt ggt	gca gat atc gac tat	tac cat cgt aaa aaa	58407
Gln Glu Asp Gly Gly	Ala Asp Ile Asp Tyr	Tyr His Arg Lys Lys	
19415	19420	19425	
cgt gaa aca agc cac	ctt gca tgg aca ata	tgt gaa gga gag tta	58452
Arg Glu Thr Ser His	Leu Ala Trp Thr Ile	Cys Glu Gly Glu Leu	
19430	19435	19440	
cag atg aca tcc tgt	aaa gta acc aag tta	ctc aaa ggc aat gaa	58497
Gln Met Thr Ser Cys	Lys Val Thr Lys Leu	Leu Lys Gly Asn Glu	
19445	19450	19455	
tat ata ttt aga gta	act ggt gtt aat aaa	tat ggt gtt ggt gag	58542
Tyr Ile Phe Arg Val	Thr Gly Val Asn Lys	Tyr Gly Val Gly Glu	
19460	19465	19470	
ccc cta gag agt gta	gct ata aag gca cta	gat cca ttt aca gtt	58587
Pro Leu Glu Ser Val	Ala Ile Lys Ala Leu	Asp Pro Phe Thr Val	
19475	19480	19485	
cca agt cca ccc acg	tct ttg gaa att act	tct gtg acc aaa gaa	58632
Pro Ser Pro Pro Thr	Ser Leu Glu Ile Thr	Ser Val Thr Lys Glu	
19490	19495	19500	
tct atg aca ctt tgc	tgg tca aga ccc gag	agt gat gga ggt agt	58677
Ser Met Thr Leu Cys	Trp Ser Arg Pro Glu	Ser Asp Gly Gly Ser	
19505	19510	19515	
gaa ata tct gga tat	ata att gaa agg cga	gag aaa aat agc cta	58722
Glu Ile Ser Gly Tyr	Ile Ile Glu Arg Arg	Glu Lys Asn Ser Leu	
19520	19525	19530	
aga tgg gtg cgt gta	aac aaa aaa cca gtt	tat gat cta aga gtg	58767
Arg Trp Val Arg Val	Asn Lys Lys Pro Val	Tyr Asp Leu Arg Val	
19535	19540	19545	
aaa tca aca gga ctt	cgg gaa gga tgt gaa	tat gaa tat cgt gtt	58812
Lys Ser Thr Gly Leu	Arg Glu Gly Cys Glu	Tyr Glu Tyr Arg Val	
19550	19555	19560	
tat gca gaa aat gct	gct ggc cta agt ctt	cca agt gaa acc tct	58857
Tyr Ala Glu Asn Ala	Ala Gly Leu Ser Leu	Pro Ser Glu Thr Ser	
19565	19570	19575	
ccc tta att agg gca	gaa gat cca gtg ttc	cta cca tct cct cca	58902
Pro Leu Ile Arg Ala	Glu Asp Pro Val Phe	Leu Pro Ser Pro Pro	
19580	19585	19590	
tcc aaa ccc aaa att	gtg gac tca ggc aag	aca act ata act att	58947
Ser Lys Pro Lys Ile	Val Asp Ser Gly Lys	Thr Thr Ile Thr Ile	
19595	19600	19605	
gcc tgg gtt aag ccg	ctg ttt gat ggt ggg	gcc ccg ata act gga	58992
Ala Trp Val Lys Pro	Leu Phe Asp Gly Gly	Ala Pro Ile Thr Gly	
19610	19615	19620	
tat act gta gaa tac	aaa aaa tct gat gac	act gac tgg aaa act	59037
Tyr Thr Val Glu Tyr	Lys Lys Ser Asp Asp	Thr Asp Trp Lys Thr	

19625					19630					19635					
tcc att cag agc tta	cga ggg aca gaa tat	aca ata agc gga cta	59082												
Ser Ile Gln Ser Leu	Arg Gly Thr Glu Tyr	Thr Ile Ser Gly Leu													
19640	19645	19650													
aca aca gga gct gaa	tat gtt ttc aga gta	aaa tct gtc aat aag	59127												
Thr Thr Gly Ala Glu	Tyr Val Phe Arg Val	Lys Ser Val Asn Lys													
19655	19660	19665													
gtt ggt gct agt gac	ccc agt gat agc tct	gac cct cag ata gca	59172												
Val Gly Ala Ser Asp	Pro Ser Asp Ser Ser	Asp Pro Gln Ile Ala													
19670	19675	19680													
aag gaa aga gaa gaa	gaa cct tta ttt gat	att gac agt gaa atg	59217												
Lys Glu Arg Glu Glu	Glu Pro Leu Phe Asp	Ile Asp Ser Glu Met													
19685	19690	19695													
agg aag acc ttg att	gtc aag gct ggt gcc	tca ttt acc atg act	59262												
Arg Lys Thr Leu Ile	Val Lys Ala Gly Ala	Ser Phe Thr Met Thr													
19700	19705	19710													
gtg cct ttc cga gga	aga cca gta ccc aat	gtc ttg tgg agt aag	59307												
Val Pro Phe Arg Gly	Arg Pro Val Pro Asn	Val Leu Trp Ser Lys													
19715	19720	19725													
cca gac act gac ctc	cgt act aga gct tat	gtt gat acc aca gac	59352												
Pro Asp Thr Asp Leu	Arg Thr Arg Ala Tyr	Val Asp Thr Thr Asp													
19730	19735	19740													
tct cgt aca tca ctg	acc att gaa aat gcc	aac aga aat gac tct	59397												
Ser Arg Thr Ser Leu	Thr Ile Glu Asn Ala	Asn Arg Asn Asp Ser													
19745	19750	19755													
gga aag tac aca tta	aca att cag aat gtt	ttg agt gct gct tca	59442												
Gly Lys Tyr Thr Leu	Thr Ile Gln Asn Val	Leu Ser Ala Ala Ser													
19760	19765	19770													
ctg acc tta gtt gtc	aaa gtt tta gat acc	cca ggt cct cca acc	59487												
Leu Thr Leu Val Val	Lys Val Leu Asp Thr	Pro Gly Pro Pro Thr													
19775	19780	19785													
aac att act gtg caa	gat gta acc aaa gag	tct gca gtg tta tcc	59532												
Asn Ile Thr Val Gln	Asp Val Thr Lys Glu	Ser Ala Val Leu Ser													
19790	19795	19800													
tgg gat gtt cct gaa	aac gat ggt gga gca	cca gtg aag aat tac	59577												
Trp Asp Val Pro Glu	Asn Asp Gly Gly Ala	Pro Val Lys Asn Tyr													
19805	19810	19815													
cac ata gaa aaa cgt	gag gcc agc aag aaa	gca tgg gtc tct gtg	59622												
His Ile Glu Lys Arg	Glu Ala Ser Lys Lys	Ala Trp Val Ser Val													
19820	19825	19830													
acc aac aac tgt aac	cgc ctc tcc tac aaa	gtt acc aat tta caa	59667												
Thr Asn Asn Cys Asn	Arg Leu Ser Tyr Lys	Val Thr Asn Leu Gln													
19835	19840	19845													

gaa gga gct atc tat	tac ttc aga gtc tct	gga gaa aat gag ttt	59712
Glu Gly Ala Ile Tyr	Tyr Phe Arg Val Ser	Gly Glu Asn Glu Phe	
19850	19855	19860	
ggt gtt ggt ata cca	gct gaa aca aag gaa	gga gta aaa ata aca	59757
Gly Val Gly Ile Pro	Ala Glu Thr Lys Glu	Gly Val Lys Ile Thr	
19865	19870	19875	
gaa aaa cca agc cca	cct gaa aaa ctt gga	gta aca agt ata tcc	59802
Glu Lys Pro Ser Pro	Pro Glu Lys Leu Gly	Val Thr Ser Ile Ser	
19880	19885	19890	
aaa gac agt gtt tcc	ctg acc tgg ctg aag	cct gaa cat gat ggc	59847
Lys Asp Ser Val Ser	Leu Thr Trp Leu Lys	Pro Glu His Asp Gly	
19895	19900	19905	
gga agc aga att gta	cac tat gtc gtt gaa	gca cta gaa aaa gga	59892
Gly Ser Arg Ile Val	His Tyr Val Val Glu	Ala Leu Glu Lys Gly	
19910	19915	19920	
cag aaa aac tgg gtt	aaa tgt gca gtg gca	aag tca acc cat cac	59937
Gln Lys Asn Trp Val	Lys Cys Ala Val Ala	Lys Ser Thr His His	
19925	19930	19935	
gtt gtt tcc ggt ctg	aga gag aat tct gaa	tac ttt ttc cga gtg	59982
Val Val Ser Gly Leu	Arg Glu Asn Ser Glu	Tyr Phe Phe Arg Val	
19940	19945	19950	
ttt gct gaa aat caa	gct ggc ctg agt gac	ccg aga gag ctt ctg	60027
Phe Ala Glu Asn Gln	Ala Gly Leu Ser Asp	Pro Arg Glu Leu Leu	
19955	19960	19965	
ctt cct gtt ctt att	aag gag caa cta gaa	cca cct gaa att gat	60072
Leu Pro Val Leu Ile	Lys Glu Gln Leu Glu	Pro Pro Glu Ile Asp	
19970	19975	19980	
atg aag aat ttc cca	agt cac act gta tat	gtt aga gct ggt tca	60117
Met Lys Asn Phe Pro	Ser His Thr Val Tyr	Val Arg Ala Gly Ser	
19985	19990	19995	
aac ctt aaa gtt gac	att cca atc tct gga	aaa cca ctt ccc aaa	60162
Asn Leu Lys Val Asp	Ile Pro Ile Ser Gly	Lys Pro Leu Pro Lys	
20000	20005	20010	
gtg acc tta tca aga	gat ggt gtc ccc ctt	aag gca acc atg aga	60207
Val Thr Leu Ser Arg	Asp Gly Val Pro Leu	Lys Ala Thr Met Arg	
20015	20020	20025	
ttt aat acc gaa att	act gct gag aac ctg	acc atc aat ctc aaa	60252
Phe Asn Thr Glu Ile	Thr Ala Glu Asn Leu	Thr Ile Asn Leu Lys	
20030	20035	20040	
gaa agt gtt aca gct	gac gct ggg aga tat	gaa atc act gct gcc	60297
Glu Ser Val Thr Ala	Asp Ala Gly Arg Tyr	Glu Ile Thr Ala Ala	
20045	20050	20055	
aac tcc agt ggt aca	acc aaa gct ttc att	aac att gtt gtg cta	60342
Asn Ser Ser Gly Thr	Thr Lys Ala Phe Ile	Asn Ile Val Val Leu	

20060					20065					20070					
gac	agg	cct	ggt	cct	cca	act	ggc	cct	gtt	gtt	att	agt	gat	ata	60387
Asp	Arg	Pro	Gly	Pro	Pro	Thr	Gly	Pro	Val	Val	Ile	Ser	Asp	Ile	
				20075					20080					20085	
act	gaa	gaa	agt	gtg	act	ctc	aaa	tgg	gag	cca	cct	aag	tat	gac	60432
Thr	Glu	Glu	Ser	Val	Thr	Leu	Lys	Trp	Glu	Pro	Pro	Lys	Tyr	Asp	
				20090					20095					20100	
ggt	gga	agt	caa	gtt	acc	aac	tac	att	cta	ctc	aaa	aga	gaa	aca	60477
Gly	Gly	Ser	Gln	Val	Thr	Asn	Tyr	Ile	Leu	Leu	Lys	Arg	Glu	Thr	
				20105					20110					20115	
agt	act	gca	gtg	tgg	act	gaa	gtg	tct	gca	aca	gtt	gca	aga	acc	60522
Ser	Thr	Ala	Val	Trp	Thr	Glu	Val	Ser	Ala	Thr	Val	Ala	Arg	Thr	
				20120					20125					20130	
atg	atg	aaa	gtc	atg	aaa	ctg	acc	aca	gga	gaa	gaa	tac	caa	ttc	60567
Met	Met	Lys	Val	Met	Lys	Leu	Thr	Thr	Gly	Glu	Glu	Tyr	Gln	Phe	
				20135					20140					20145	
cgc	atc	aag	gca	gaa	aac	cgc	ttt	ggc	atc	agt	gat	cat	ata	gat	60612
Arg	Ile	Lys	Ala	Glu	Asn	Arg	Phe	Gly	Ile	Ser	Asp	His	Ile	Asp	
				20150					20155					20160	
tca	gct	tgt	gtg	act	gtc	aaa	cta	cca	tac	aca	aca	cct	gga	cca	60657
Ser	Ala	Cys	Val	Thr	Val	Lys	Leu	Pro	Tyr	Thr	Thr	Pro	Gly	Pro	
				20165					20170					20175	
cca	tct	aca	cca	tgg	gtc	act	aat	gtt	act	cga	gaa	agc	atc	act	60702
Pro	Ser	Thr	Pro	Trp	Val	Thr	Asn	Val	Thr	Arg	Glu	Ser	Ile	Thr	
				20180					20185					20190	
gtg	ggc	tgg	cat	gaa	cca	gtg	tca	aat	gga	ggc	agt	gca	gtc	gta	60747
Val	Gly	Trp	His	Glu	Pro	Val	Ser	Asn	Gly	Gly	Ser	Ala	Val	Val	
				20195					20200					20205	
ggc	tat	cac	ctg	gaa	atg	aaa	gac	aga	aac	agt	att	tta	tgg	caa	60792
Gly	Tyr	His	Leu	Glu	Met	Lys	Asp	Arg	Asn	Ser	Ile	Leu	Trp	Gln	
				20210					20215					20220	
aaa	gcc	aac	aaa	ctg	gtc	atc	cgc	aca	act	cac	ttc	aaa	gtc	aca	60837
Lys	Ala	Asn	Lys	Leu	Val	Ile	Arg	Thr	Thr	His	Phe	Lys	Val	Thr	
				20225					20230					20235	
aca	atc	agt	gct	gga	ctt	att	tat	gaa	ttc	agg	gtg	tat	gca	gaa	60882
Thr	Ile	Ser	Ala	Gly	Leu	Ile	Tyr	Glu	Phe	Arg	Val	Tyr	Ala	Glu	
				20240					20245					20250	
aat	gct	gct	gga	gtt	gga	aaa	cct	agc	cat	cct	tct	gaa	cca	gtc	60927
Asn	Ala	Ala	Gly	Val	Gly	Lys	Pro	Ser	His	Pro	Ser	Glu	Pro	Val	
				20255					20260					20265	
ttg	gca	att	gat	gct	tgt	gaa	ccc	cca	aga	aat	gtt	cgt	atc	act	60972
Leu	Ala	Ile	Asp	Ala	Cys	Glu	Pro	Pro	Arg	Asn	Val	Arg	Ile	Thr	
				20270					20275					20280	

gat att tca aag aac	tct gtc agc ctt tca	tgg caa caa cca gct	61017
Asp Ile Ser Lys Asn	Ser Val Ser Leu Ser	Trp Gln Gln Pro Ala	
20285	20290	20295	
ttc gat gga ggt agc	aag att aca ggc tac	att gtt gag aga cgt	61062
Phe Asp Gly Gly Ser	Lys Ile Thr Gly Tyr	Ile Val Glu Arg Arg	
20300	20305	20310	
gac ctt cca gat ggc	aga tgg acc aag gcc	agc ttc acc aat gtt	61107
Asp Leu Pro Asp Gly	Arg Trp Thr Lys Ala	Ser Phe Thr Asn Val	
20315	20320	20325	
act gaa act caa ttc	acc atc tct ggc ttg	act cag aat tcc cag	61152
Thr Glu Thr Gln Phe	Thr Ile Ser Gly Leu	Thr Gln Asn Ser Gln	
20330	20335	20340	
tat gaa ttc cgt gtc	ttt gct agg aat gct	gtt ggt tcc att agc	61197
Tyr Glu Phe Arg Val	Phe Ala Arg Asn Ala	Val Gly Ser Ile Ser	
20345	20350	20355	
aat cca tct gag gtt	gta ggg ccc att act	tgc atc gat tct tat	61242
Asn Pro Ser Glu Val	Val Gly Pro Ile Thr	Cys Ile Asp Ser Tyr	
20360	20365	20370	
ggg ggt cct gta att	gat ttg cct cta gaa	tat aca gaa gtt gtc	61287
Gly Gly Pro Val Ile	Asp Leu Pro Leu Glu	Tyr Thr Glu Val Val	
20375	20380	20385	
aaa tac aga gca ggt	aca tct gtg aag ctc	aga gct ggc att tct	61332
Lys Tyr Arg Ala Gly	Thr Ser Val Lys Leu	Arg Ala Gly Ile Ser	
20390	20395	20400	
ggc aaa cct gcg cct	act att gag tgg tat	aaa gat gat aaa gaa	61377
Gly Lys Pro Ala Pro	Thr Ile Glu Trp Tyr	Lys Asp Asp Lys Glu	
20405	20410	20415	
tta caa acc aat gca	ctg gtg tgt gtt gaa	aat acc acg gac ctc	61422
Leu Gln Thr Asn Ala	Leu Val Cys Val Glu	Asn Thr Thr Asp Leu	
20420	20425	20430	
gca tct ata ctc atc	aaa gat gcc gat cgc	ctt aat agt gga tgc	61467
Ala Ser Ile Leu Ile	Lys Asp Ala Asp Arg	Leu Asn Ser Gly Cys	
20435	20440	20445	
tat gaa tta aaa cta	agg aat gcc atg gcg	tca gcc tca gcc acc	61512
Tyr Glu Leu Lys Leu	Arg Asn Ala Met Ala	Ser Ala Ser Ala Thr	
20450	20455	20460	
atc aga gta cag atc	ctt gac aaa cca ggc	cca cct ggt gga cca	61557
Ile Arg Val Gln Ile	Leu Asp Lys Pro Gly	Pro Pro Gly Gly Pro	
20465	20470	20475	
att gaa ttt aag act	gta act gct gag aag	atc acc ctt ctc tgg	61602
Ile Glu Phe Lys Thr	Val Thr Ala Glu Lys	Ile Thr Leu Leu Trp	
20480	20485	20490	
cgg cct cca gct gat	gat ggt ggt gca aaa	atc act cac tac att	61647
Arg Pro Pro Ala Asp	Asp Gly Gly Ala Lys	Ile Thr His Tyr Ile	

20495					20500					20505					
gtg	gaa	aag	cgt	gag	aca	agc	cgc	gtt	gtg	tgg	tct	atg	gtg	tct	61692
Val	Glu	Lys	Arg	Glu	Thr	Ser	Arg	Val	Val	Trp	Ser	Met	Val	Ser	
				20510					20515					20520	
gaa	cat	ttg	gaa	gag	tgc	atc	att	aca	acc	acc	aaa	att	atc	aaa	61737
Glu	His	Leu	Glu	Glu	Cys	Ile	Ile	Thr	Thr	Thr	Lys	Ile	Ile	Lys	
				20525					20530					20535	
gga	aat	gaa	tac	atc	ttc	cgg	gtc	cga	gcc	gtg	aac	aaa	tat	gga	61782
Gly	Asn	Glu	Tyr	Ile	Phe	Arg	Val	Arg	Ala	Val	Asn	Lys	Tyr	Gly	
				20540					20545					20550	
att	ggc	gag	cca	ctg	gaa	tct	gat	tcc	gtt	gta	gcc	aag	aac	gca	61827
Ile	Gly	Glu	Pro	Leu	Glu	Ser	Asp	Ser	Val	Val	Ala	Lys	Asn	Ala	
				20555					20560					20565	
ttt	gtt	aca	cct	ggg	cca	cca	ggc	ata	cca	gaa	gtg	aca	aag	att	61872
Phe	Val	Thr	Pro	Gly	Pro	Pro	Gly	Ile	Pro	Glu	Val	Thr	Lys	Ile	
				20570					20575					20580	
acc	aag	aat	tcg	atg	act	gtt	gta	tgg	agc	agg	cca	att	gca	gat	61917
Thr	Lys	Asn	Ser	Met	Thr	Val	Val	Trp	Ser	Arg	Pro	Ile	Ala	Asp	
				20585					20590					20595	
ggc	ggt	agt	gat	ata	agt	ggc	tat	ttc	ctt	gaa	aaa	cga	gac	aag	61962
Gly	Gly	Ser	Asp	Ile	Ser	Gly	Tyr	Phe	Leu	Glu	Lys	Arg	Asp	Lys	
				20600					20605					20610	
aag	agc	cta	gga	tgg	ttt	aaa	gta	cta	aaa	gag	act	atc	cgt	gac	62007
Lys	Ser	Leu	Gly	Trp	Phe	Lys	Val	Leu	Lys	Glu	Thr	Ile	Arg	Asp	
				20615					20620					20625	
acc	aga	caa	aaa	gta	aca	gga	ctc	aca	gaa	aac	agt	gac	tat	caa	62052
Thr	Arg	Gln	Lys	Val	Thr	Gly	Leu	Thr	Glu	Asn	Ser	Asp	Tyr	Gln	
				20630					20635					20640	
tac	aga	gtt	tgt	gct	gta	aac	gct	gct	gga	cag	ggt	cca	ttt	tct	62097
Tyr	Arg	Val	Cys	Ala	Val	Asn	Ala	Ala	Gly	Gln	Gly	Pro	Phe	Ser	
				20645					20650					20655	
gaa	cca	tct	gaa	ttc	tac	aaa	gct	gct	gat	cct	att	gat	cct	cca	62142
Glu	Pro	Ser	Glu	Phe	Tyr	Lys	Ala	Ala	Asp	Pro	Ile	Asp	Pro	Pro	
				20660					20665					20670	
ggt	cca	cct	gct	aag	ata	aga	atc	gca	gat	tca	acc	aag	tca	tcc	62187
Gly	Pro	Pro	Ala	Lys	Ile	Arg	Ile	Ala	Asp	Ser	Thr	Lys	Ser	Ser	
				20675					20680					20685	
atc	acc	ctt	ggc	tgg	agt	aag	cct	gtc	tat	gat	ggg	ggc	agt	gct	62232
Ile	Thr	Leu	Gly	Trp	Ser	Lys	Pro	Val	Tyr	Asp	Gly	Gly	Ser	Ala	
				20690					20695					20700	
gtt	act	ggg	tat	gtt	gtc	gag	ata	aga	caa	gga	gag	gaa	gag	gaa	62277
Val	Thr	Gly	Tyr	Val	Val	Glu	Ile	Arg	Gln	Gly	Glu	Glu	Glu	Glu	
				20705					20710					20715	

tgg act act gtc tct	acc aaa gga gag gtc	aga act aca gaa tat	62322
Trp Thr Thr Val Ser	Thr Lys Gly Glu Val	Arg Thr Thr Glu Tyr	
20720	20725	20730	
gtg gta tcc aac ctg	aaa cct gga gtc aat	tac tac ttc cgg gta	62367
Val Val Ser Asn Leu	Lys Pro Gly Val Asn	Tyr Tyr Phe Arg Val	
20735	20740	20745	
tct gct gta aac tgt	gct gga caa gga gaa	cct ata gaa atg aat	62412
Ser Ala Val Asn Cys	Ala Gly Gln Gly Glu	Pro Ile Glu Met Asn	
20750	20755	20760	
gaa cct gta caa gct	aaa gat ata ctt gag	gca cca gag att gac	62457
Glu Pro Val Gln Ala	Lys Asp Ile Leu Glu	Ala Pro Glu Ile Asp	
20765	20770	20775	
ctg gat gtg gct ctc	aga act tct gtt att	gcc aaa gct ggt gaa	62502
Leu Asp Val Ala Leu	Arg Thr Ser Val Ile	Ala Lys Ala Gly Glu	
20780	20785	20790	
gat gta caa gtg ttg	att ccc ttt aaa ggc	aga cct cca cct act	62547
Asp Val Gln Val Leu	Ile Pro Phe Lys Gly	Arg Pro Pro Pro Thr	
20795	20800	20805	
gtc aca tgg aga aaa	gat gag aag aat ctt	ggc agt gat gcc aga	62592
Val Thr Trp Arg Lys	Asp Glu Lys Asn Leu	Gly Ser Asp Ala Arg	
20810	20815	20820	
tac agc att gaa aac	act gat tca tcc tca	tta ctc acc att cct	62637
Tyr Ser Ile Glu Asn	Thr Asp Ser Ser Ser	Leu Leu Thr Ile Pro	
20825	20830	20835	
caa gtt act cgc aat	gat aca gga aaa tat	att ctc aca ata gaa	62682
Gln Val Thr Arg Asn	Asp Thr Gly Lys Tyr	Ile Leu Thr Ile Glu	
20840	20845	20850	
aat gga gtt ggt gaa	cct aag tct tca act	gtg agt gtt aaa gtg	62727
Asn Gly Val Gly Glu	Pro Lys Ser Ser Thr	Val Ser Val Lys Val	
20855	20860	20865	
ctt gac aca cca gct	gcc tgc cag aaa cta	cag gtt aaa cat gtt	62772
Leu Asp Thr Pro Ala	Ala Cys Gln Lys Leu	Gln Val Lys His Val	
20870	20875	20880	
tct cga ggc aca gtc	act ttg ctc tgg gat	cct cct ctc att gat	62817
Ser Arg Gly Thr Val	Thr Leu Leu Trp Asp	Pro Pro Leu Ile Asp	
20885	20890	20895	
gga gga tct cca ata	att aat tat gtc att	gaa aag aga gat gcc	62862
Gly Gly Ser Pro Ile	Ile Asn Tyr Val Ile	Glu Lys Arg Asp Ala	
20900	20905	20910	
acc aag aga aca tgg	tct gtc gtg tca cac	aaa tgt tct agc aca	62907
Thr Lys Arg Thr Trp	Ser Val Val Ser His	Lys Cys Ser Ser Thr	
20915	20920	20925	
tcc ttc aag cta ata	gat ttg tcg gag aag	act cca ttc ttc ttc	62952
Ser Phe Lys Leu Ile	Asp Leu Ser Glu Lys	Thr Pro Phe Phe Phe	

20930					20935					20940					
aga gtt ctt gca gaa	aat gaa att gga att	ggg gaa ccc tgt gaa	62997												
Arg Val Leu Ala Glu	Asn Glu Ile Gly Ile	Gly Glu Pro Cys Glu													
20945	20950	20955													
act aca gag cca gtg	aag gct gct gaa gta	cca gct cct ata cgt	63042												
Thr Thr Glu Pro Val	Lys Ala Ala Glu Val	Pro Ala Pro Ile Arg													
20960	20965	20970													
gat ctc tca atg aaa	gac tca aca aag aca	tct gtc atc ctc agc	63087												
Asp Leu Ser Met Lys	Asp Ser Thr Lys Thr	Ser Val Ile Leu Ser													
20975	20980	20985													
tgg acc aaa cct gac	ttt gat ggt ggt agc	gtc atc aca gaa tat	63132												
Trp Thr Lys Pro Asp	Phe Asp Gly Gly Ser	Val Ile Thr Glu Tyr													
20990	20995	21000													
gtt gta gaa agg aaa	ggg aaa ggt gaa cag	acg tgg tcc cac gct	63177												
Val Val Glu Arg Lys	Gly Lys Gly Glu Gln	Thr Trp Ser His Ala													
21005	21010	21015													
ggc ata agt aag aca	tgt gaa att gag gtt	agc caa ctt aag gag	63222												
Gly Ile Ser Lys Thr	Cys Glu Ile Glu Val	Ser Gln Leu Lys Glu													
21020	21025	21030													
cag tca gtc ctg gag	ttc aga gtg ttt gcc	aaa aat gag aaa gga	63267												
Gln Ser Val Leu Glu	Phe Arg Val Phe Ala	Lys Asn Glu Lys Gly													
21035	21040	21045													
ctg agt gat cct gtc	act att ggg cca att	aca gtg aaa gaa ctt	63312												
Leu Ser Asp Pro Val	Thr Ile Gly Pro Ile	Thr Val Lys Glu Leu													
21050	21055	21060													
att att aca cct gaa	gtt gac ctg tca gat	atc cct ggg gca caa	63357												
Ile Ile Thr Pro Glu	Val Asp Leu Ser Asp	Ile Pro Gly Ala Gln													
21065	21070	21075													
gtc act gtg aga att	ggg cac aat gtg cac	ctt gaa tta cct tat	63402												
Val Thr Val Arg Ile	Gly His Asn Val His	Leu Glu Leu Pro Tyr													
21080	21085	21090													
aag gga aaa ccc aaa	cca tcc atc agt tgg	ctg aaa gat ggc ttg	63447												
Lys Gly Lys Pro Lys	Pro Ser Ile Ser Trp	Leu Lys Asp Gly Leu													
21095	21100	21105													
cca ctg aaa gaa agt	gaa ttt gtt cgc ttc	agt aaa act gaa aac	63492												
Pro Leu Lys Glu Ser	Glu Phe Val Arg Phe	Ser Lys Thr Glu Asn													
21110	21115	21120													
aaa att act ttg agt	att aag aat gcc aag	aag gag cat gga gga	63537												
Lys Ile Thr Leu Ser	Ile Lys Asn Ala Lys	Lys Glu His Gly Gly													
21125	21130	21135													
aaa tac act gtt att	ctt gat aat gca gtg	tgt aga att gca gtc	63582												
Lys Tyr Thr Val Ile	Leu Asp Asn Ala Val	Cys Arg Ile Ala Val													
21140	21145	21150													

ccc att aca gtc atc Pro Ile Thr Val Ile 21155	acc ctt ggc cca cca Thr Leu Gly Pro Pro 21160	tca aag ccc aaa gga Ser Lys Pro Lys Gly 21165	63627
ccc att cga ttt gat Pro Ile Arg Phe Asp 21170	gaa atc aag gct gat Glu Ile Lys Ala Asp 21175	agt gtc atc ctg tca Ser Val Ile Leu Ser 21180	63672
tgg gat gta cct gaa Trp Asp Val Pro Glu 21185	gat aat gga gga gga Asp Asn Gly Gly Gly 21190	gaa att act tgt tac Glu Ile Thr Cys Tyr 21195	63717
agc atc gag aag cgg Ser Ile Glu Lys Arg 21200	gaa act tca caa act Glu Thr Ser Gln Thr 21205	aac tgg aag atg gtg Asn Trp Lys Met Val 21210	63762
tgt tca agt gtt gcc Cys Ser Ser Val Ala 21215	aga acg act ttc aaa Arg Thr Thr Phe Lys 21220	gtt cct aat cta gtc Val Pro Asn Leu Val 21225	63807
aaa gat gct gaa tac Lys Asp Ala Glu Tyr 21230	cag ttt aga gtg aga Gln Phe Arg Val Arg 21235	gca gaa aac aga tac Ala Glu Asn Arg Tyr 21240	63852
gga gtc agc caa cca Gly Val Ser Gln Pro 21245	ctt gtc tca agc att Leu Val Ser Ser Ile 21250	att gtg gca aaa cac Ile Val Ala Lys His 21255	63897
cag ttc agg att cct Gln Phe Arg Ile Pro 21260	ggc ccc cca gga aag Gly Pro Pro Gly Lys 21265	cca gtt ata tac aat Pro Val Ile Tyr Asn 21270	63942
gtg act tct gat ggc Val Thr Ser Asp Gly 21275	atg tca cta act tgg Met Ser Leu Thr Trp 21280	gat gct cca gtt tat Asp Ala Pro Val Tyr 21285	63987
gat ggt ggt tca gaa Asp Gly Gly Ser Glu 21290	gtt act gga ttc cat Val Thr Gly Phe His 21295	gtt gaa aag aaa gaa Val Glu Lys Lys Glu 21300	64032
aga aat agc atc ctc Arg Asn Ser Ile Leu 21305	tgg caa aaa gtt aat Trp Gln Lys Val Asn 21310	aca tca cca atc tct Thr Ser Pro Ile Ser 21315	64077
gga aga gaa tat aga Gly Arg Glu Tyr Arg 21320	gcc act gga ctg gta Ala Thr Gly Leu Val 21325	gaa ggt ctg gat tac Glu Gly Leu Asp Tyr 21330	64122
caa ttc cgt gta tat Gln Phe Arg Val Tyr 21335	gct gaa aat tct gct Ala Glu Asn Ser Ala 21340	ggc cta agc tca cct Gly Leu Ser Ser Pro 21345	64167
agt gac cca agc aaa Ser Asp Pro Ser Lys 21350	ttt acc tta gct gtt Phe Thr Leu Ala Val 21355	tct cca gta gac cca Ser Pro Val Asp Pro 21360	64212
cct ggc act cct gac Pro Gly Thr Pro Asp	tac att gat gtc acc Tyr Ile Asp Val Thr	cgg gaa acc atc aca Arg Glu Thr Ile Thr	64257

21365					21370					21375					
ctt	aaa	tgg	aac	cca	cca	ttg	cgt	gat	gga	ggc	agt	aag	att	gtg	64302
Leu	Lys	Trp	Asn	Pro	Pro	Leu	Arg	Asp	Gly	Gly	Ser	Lys	Ile	Val	
				21380					21385					21390	
ggc	tat	agc	att	gag	aaa	cgg	caa	gga	aat	gaa	cgc	tgg	gtg	aga	64347
Gly	Tyr	Ser	Ile	Glu	Lys	Arg	Gln	Gly	Asn	Glu	Arg	Trp	Val	Arg	
				21395					21400					21405	
tgc	aac	ttt	act	gac	gtc	agt	gaa	tgt	cag	tac	aca	gtt	aca	gga	64392
Cys	Asn	Phe	Thr	Asp	Val	Ser	Glu	Cys	Gln	Tyr	Thr	Val	Thr	Gly	
				21410					21415					21420	
ctc	agt	cct	ggg	gat	cgc	tat	gag	ttc	aga	ata	att	gca	aga	aat	64437
Leu	Ser	Pro	Gly	Asp	Arg	Tyr	Glu	Phe	Arg	Ile	Ile	Ala	Arg	Asn	
				21425					21430					21435	
gct	gtt	gga	act	ata	agc	ccg	ccc	tca	cag	tct	tct	ggc	att	att	64482
Ala	Val	Gly	Thr	Ile	Ser	Pro	Pro	Ser	Gln	Ser	Ser	Gly	Ile	Ile	
				21440					21445					21450	
atg	aca	aga	gat	gaa	aat	gtt	cca	cca	ata	gta	gag	ttt	ggc	cct	64527
Met	Thr	Arg	Asp	Glu	Asn	Val	Pro	Pro	Ile	Val	Glu	Phe	Gly	Pro	
				21455					21460					21465	
gaa	tac	ttt	gat	ggg	ctc	att	att	aag	tcc	gga	gag	agc	ctt	aga	64572
Glu	Tyr	Phe	Asp	Gly	Leu	Ile	Ile	Lys	Ser	Gly	Glu	Ser	Leu	Arg	
				21470					21475					21480	
att	aaa	gct	ttg	gta	caa	gga	aga	cca	gtg	cct	cga	gta	act	tgg	64617
Ile	Lys	Ala	Leu	Val	Gln	Gly	Arg	Pro	Val	Pro	Arg	Val	Thr	Trp	
				21485					21490					21495	
ttc	aaa	gat	gga	gtg	gaa	atc	gaa	aag	agg	atg	aat	atg	gaa	ata	64662
Phe	Lys	Asp	Gly	Val	Glu	Ile	Glu	Lys	Arg	Met	Asn	Met	Glu	Ile	
				21500					21505					21510	
acc	aac	gta	ctt	gga	tcc	acc	agc	cta	ttt	gtt	aga	gat	gct	act	64707
Thr	Asn	Val	Leu	Gly	Ser	Thr	Ser	Leu	Phe	Val	Arg	Asp	Ala	Thr	
				21515					21520					21525	
cgg	gac	cat	cgt	ggg	gta	tac	aca	gtg	gaa	gcc	aaa	aat	gca	tct	64752
Arg	Asp	His	Arg	Gly	Val	Tyr	Thr	Val	Glu	Ala	Lys	Asn	Ala	Ser	
				21530					21535					21540	
ggg	tct	gca	aaa	gca	gaa	att	aaa	gtg	aaa	gta	caa	gat	aca	cca	64797
Gly	Ser	Ala	Lys	Ala	Glu	Ile	Lys	Val	Lys	Val	Gln	Asp	Thr	Pro	
				21545					21550					21555	
gga	aaa	gta	gtt	ggg	cca	ata	aga	ttc	acc	aat	att	act	ggg	gag	64842
Gly	Lys	Val	Val	Gly	Pro	Ile	Arg	Phe	Thr	Asn	Ile	Thr	Gly	Glu	
				21560					21565					21570	
aag	atg	act	ctg	tgg	tgg	gat	gcc	cca	ctc	aat	gac	ggg	tgt	gct	64887
Lys	Met	Thr	Leu	Trp	Trp	Asp	Ala	Pro	Leu	Asn	Asp	Gly	Cys	Ala	
				21575					21580					21585	

ccc ata acc cac tac	atc att gaa aaa cgg	gaa acc agc aga ctt	64932
Pro Ile Thr His Tyr	Ile Ile Glu Lys Arg	Glu Thr Ser Arg Leu	
21590	21595	21600	
gcc tgg gca cta att	gag gat aaa tgt gaa	gcc caa agt tac act	64977
Ala Trp Ala Leu Ile	Glu Asp Lys Cys Glu	Ala Gln Ser Tyr Thr	
21605	21610	21615	
gcc att aaa cta ata	aac ggc aat gaa tac	caa ttc cgt gtt tct	65022
Ala Ile Lys Leu Ile	Asn Gly Asn Glu Tyr	Gln Phe Arg Val Ser	
21620	21625	21630	
gca gtt aac aag ttt	ggg gtt ggc agg cca	ctt gat tct gat cca	65067
Ala Val Asn Lys Phe	Gly Val Gly Arg Pro	Leu Asp Ser Asp Pro	
21635	21640	21645	
gtg gtt gct caa ata	caa tat act gtt cct	gat gcc cct ggc att	65112
Val Val Ala Gln Ile	Gln Tyr Thr Val Pro	Asp Ala Pro Gly Ile	
21650	21655	21660	
cca gaa cct agc aac	ata aca ggc aac agc	att acc ctg aca tgg	65157
Pro Glu Pro Ser Asn	Ile Thr Gly Asn Ser	Ile Thr Leu Thr Trp	
21665	21670	21675	
gca agg cca gaa tca	gat ggt ggc agt gaa	att caa cag tat atc	65202
Ala Arg Pro Glu Ser	Asp Gly Gly Ser Glu	Ile Gln Gln Tyr Ile	
21680	21685	21690	
ctt gaa aga aga gaa	aag aaa agc aca aga	tgg gta aaa gtg atc	65247
Leu Glu Arg Arg Glu	Lys Lys Ser Thr Arg	Trp Val Lys Val Ile	
21695	21700	21705	
agc aaa cga cca atc	tct gaa aca aga ttc	aaa gtc act ggt ctg	65292
Ser Lys Arg Pro Ile	Ser Glu Thr Arg Phe	Lys Val Thr Gly Leu	
21710	21715	21720	
aca gaa ggc aat gag	tat gaa ttc cat gtc	atg gct gaa aat gct	65337
Thr Glu Gly Asn Glu	Tyr Glu Phe His Val	Met Ala Glu Asn Ala	
21725	21730	21735	
gca gga gtt gga cct	gca agt ggc atc tca	aga ctc att aaa tgt	65382
Ala Gly Val Gly Pro	Ala Ser Gly Ile Ser	Arg Leu Ile Lys Cys	
21740	21745	21750	
aga gag ccc gtc aac	cca cca ggt cct ccc	aca gtg gtc aaa gta	65427
Arg Glu Pro Val Asn	Pro Pro Gly Pro Pro	Thr Val Val Lys Val	
21755	21760	21765	
aca gac aca tca aag	aca act gtg agc tta	gaa tgg tcc aaa cca	65472
Thr Asp Thr Ser Lys	Thr Thr Val Ser Leu	Glu Trp Ser Lys Pro	
21770	21775	21780	
gtg ttt gat ggt ggc	atg gaa ata att ggg	tat att att gaa atg	65517
Val Phe Asp Gly Gly	Met Glu Ile Ile Gly	Tyr Ile Ile Glu Met	
21785	21790	21795	
tgt aag acc gac tta	gga gac tgg cac aag	gtg aat gca gag gca	65562
Cys Lys Thr Asp Leu	Gly Asp Trp His Lys	Val Asn Ala Glu Ala	

21800					21805					21810					
tgt	gtg	aaa	aca	aga	tat	aca	gtc	act	gat	cta	caa	gca	ggg	gaa	65607
Cys	Val	Lys	Thr	Arg	Tyr	Thr	Val	Thr	Asp	Leu	Gln	Ala	Gly	Glu	
				21815					21820					21825	
gaa	tac	aaa	ttc	cga	gtt	agt	gct	atc	aat	ggg	gct	gga	aaa	ggc	65652
Glu	Tyr	Lys	Phe	Arg	Val	Ser	Ala	Ile	Asn	Gly	Ala	Gly	Lys	Gly	
				21830					21835					21840	
gac	agc	tgt	gaa	gtg	act	ggc	aca	att	aaa	gca	gtt	gac	cgg	tta	65697
Asp	Ser	Cys	Glu	Val	Thr	Gly	Thr	Ile	Lys	Ala	Val	Asp	Arg	Leu	
				21845					21850					21855	
aca	gct	cct	gag	tta	gac	ata	gat	gca	aac	ttc	aaa	cag	act	cat	65742
Thr	Ala	Pro	Glu	Leu	Asp	Ile	Asp	Ala	Asn	Phe	Lys	Gln	Thr	His	
				21860					21865					21870	
gtt	gtt	aga	gct	ggg	gcc	agt	att	cgc	ctc	ttc	att	gcc	tac	caa	65787
Val	Val	Arg	Ala	Gly	Ala	Ser	Ile	Arg	Leu	Phe	Ile	Ala	Tyr	Gln	
				21875					21880					21885	
ggg	aga	cct	act	cct	aca	gct	gtg	tgg	agc	aaa	cca	gac	tct	aac	65832
Gly	Arg	Pro	Thr	Pro	Thr	Ala	Val	Trp	Ser	Lys	Pro	Asp	Ser	Asn	
				21890					21895					21900	
ctt	agc	ctt	cgg	gct	gat	atc	cat	aca	aca	gat	tcc	ttc	agc	acc	65877
Leu	Ser	Leu	Arg	Ala	Asp	Ile	His	Thr	Thr	Asp	Ser	Phe	Ser	Thr	
				21905					21910					21915	
ctc	act	gtg	gaa	aac	tgc	aac	aga	aat	gat	gca	ggg	aaa	tat	acc	65922
Leu	Thr	Val	Glu	Asn	Cys	Asn	Arg	Asn	Asp	Ala	Gly	Lys	Tyr	Thr	
				21920					21925					21930	
ctt	act	gtg	gaa	aac	aac	agt	ggg	agt	aag	tca	atc	aca	ttc	acc	65967
Leu	Thr	Val	Glu	Asn	Asn	Ser	Gly	Ser	Lys	Ser	Ile	Thr	Phe	Thr	
				21935					21940					21945	
gtg	aaa	gtg	cta	gac	act	cca	ggc	cca	cct	ggc	cca	att	acc	ttc	66012
Val	Lys	Val	Leu	Asp	Thr	Pro	Gly	Pro	Pro	Gly	Pro	Ile	Thr	Phe	
				21950					21955					21960	
aaa	gat	gtg	acc	cgg	gga	tct	gct	aca	tgg	atg	tgg	gat	gcc	cct	66057
Lys	Asp	Val	Thr	Arg	Gly	Ser	Ala	Thr	Leu	Met	Trp	Asp	Ala	Pro	
				21965					21970					21975	
ctt	ctt	gac	ggg	ggg	gcc	cga	atc	cat	cat	tat	gtg	gta	gag	aaa	66102
Leu	Leu	Asp	Gly	Gly	Ala	Arg	Ile	His	His	Tyr	Val	Val	Glu	Lys	
				21980					21985					21990	
cga	gag	gca	agt	cgc	cgt	agt	tgg	cag	gtt	atc	agt	gaa	aaa	tgc	66147
Arg	Glu	Ala	Ser	Arg	Arg	Ser	Trp	Gln	Val	Ile	Ser	Glu	Lys	Cys	
				21995					22000					22005	
act	cgt	cag	atc	ttc	aag	gtc	aat	gac	ctg	gcc	gaa	ggg	gtt	ccg	66192
Thr	Arg	Gln	Ile	Phe	Lys	Val	Asn	Asp	Leu	Ala	Glu	Gly	Val	Pro	
				22010					22015					22020	

tac tat ttc cgt gtt	tct gca gta aat gag	tat ggt gtt ggt gag	66237
Tyr Tyr Phe Arg Val	Ser Ala Val Asn Glu	Tyr Gly Val Gly Glu	
22025	22030	22035	
ccc tat gaa atg cca	gaa cca att gta gcc	acg gaa cag cct gct	66282
Pro Tyr Glu Met Pro	Glu Pro Ile Val Ala	Thr Glu Gln Pro Ala	
22040	22045	22050	
cca cct agg aga ctt	gat gtt gtt gat act	agc aaa tcc tcc gca	66327
Pro Pro Arg Arg Leu	Asp Val Val Asp Thr	Ser Lys Ser Ser Ala	
22055	22060	22065	
gtc tta gct tgg ctt	aaa cct gac cac gat	gga ggc agc cgg atc	66372
Val Leu Ala Trp Leu	Lys Pro Asp His Asp	Gly Gly Ser Arg Ile	
22070	22075	22080	
act ggc tac ctg ctt	gaa atg aga caa aag	gga tct gac ctc tgg	66417
Thr Gly Tyr Leu Leu	Glu Met Arg Gln Lys	Gly Ser Asp Leu Trp	
22085	22090	22095	
gtt gaa gct ggt cac	acc aaa cag cta act	ttc aca gta gag cgt	66462
Val Glu Ala Gly His	Thr Lys Gln Leu Thr	Phe Thr Val Glu Arg	
22100	22105	22110	
ctt gtt gag aaa act	gaa tat gaa ttc cgt	gtg aag gcc aag aat	66507
Leu Val Glu Lys Thr	Glu Tyr Glu Phe Arg	Val Lys Ala Lys Asn	
22115	22120	22125	
gat gct ggc tat agt	gaa ccc aga gaa gcc	ttc tct tct gtc atc	66552
Asp Ala Gly Tyr Ser	Glu Pro Arg Glu Ala	Phe Ser Ser Val Ile	
22130	22135	22140	
att aag gag cct caa	atc gag ccc act gct	gac ctc act gga att	66597
Ile Lys Glu Pro Gln	Ile Glu Pro Thr Ala	Asp Leu Thr Gly Ile	
22145	22150	22155	
acc aat cag ctt ata	act tgc aaa gca gga	agc cca ttt acc att	66642
Thr Asn Gln Leu Ile	Thr Cys Lys Ala Gly	Ser Pro Phe Thr Ile	
22160	22165	22170	
gac gta cca atc agt	ggt cgt cct gcc ccc	aaa gta aca tgg aaa	66687
Asp Val Pro Ile Ser	Gly Arg Pro Ala Pro	Lys Val Thr Trp Lys	
22175	22180	22185	
ctg gaa gaa atg aga	ctt aaa gag aca gat	cga gtg agc att aca	66732
Leu Glu Glu Met Arg	Leu Lys Glu Thr Asp	Arg Val Ser Ile Thr	
22190	22195	22200	
aca aca aaa gac aga	acc aca ctg act gta	aag gac agc atg aga	66777
Thr Thr Lys Asp Arg	Thr Thr Leu Thr Val	Lys Asp Ser Met Arg	
22205	22210	22215	
ggt gac tct gga aga	tac ttc ttg acc ctg	gaa aat aca gct ggt	66822
Gly Asp Ser Gly Arg	Tyr Phe Leu Thr Leu	Glu Asn Thr Ala Gly	
22220	22225	22230	
gtt aaa aca ttt agc	gtc aca gtt gtg gtc	att gga agg cca ggt	66867
Val Lys Thr Phe Ser	Val Thr Val Val Val	Ile Gly Arg Pro Gly	

cca gta acc ggc ccc Pro Val Thr Gly Pro 22250	22235	att gag gtc tca tct Ile Glu Val Ser Ser 22255	22240	gtc tca gct gaa tcg Val Ser Ala Glu Ser 22260	22245	66912
tgt gtc ctg tca tgg Cys Val Leu Ser Trp 22265	22265	gga gaa cct aaa gat Gly Glu Pro Lys Asp 22270	22270	gga gga ggc act gaa Gly Gly Gly Thr Glu 22275		66957
att act aat tac ata Ile Thr Asn Tyr Ile 22280	22280	gtt gaa aag cgt gaa Val Glu Lys Arg Glu 22285	22285	tcg ggt aca aca gct Ser Gly Thr Thr Ala 22290		67002
tgg cag ctt gtc aat Trp Gln Leu Val Asn 22295	22295	tcc agt gtc aag cgc Ser Ser Val Lys Arg 22300	22300	act caa att aaa gtc Thr Gln Ile Lys Val 22305		67047
act cat ctc aca aaa Thr His Leu Thr Lys 22310	22310	tac atg gaa tat tct Tyr Met Glu Tyr Ser 22315	22315	ttc cgt gtc agt tca Phe Arg Val Ser Ser 22320		67092
gag aac aga ttt ggt Glu Asn Arg Phe Gly 22325	22325	gtc agc aaa cct cta Val Ser Lys Pro Leu 22330	22330	gaa tca gca cca ata Glu Ser Ala Pro Ile 22335		67137
att gct gaa cat cca Ile Ala Glu His Pro 22340	22340	ttt gtc cca cca agc Phe Val Pro Pro Ser 22345	22345	gct cct acc aga cct Ala Pro Thr Arg Pro 22350		67182
gag gtc tac cat gtg Glu Val Tyr His Val 22355	22355	tct gcc aat gcc atg Ser Ala Asn Ala Met 22360	22360	tct att cgt tgg gaa Ser Ile Arg Trp Glu 22365		67227
gaa ccc tac cac gat Glu Pro Tyr His Asp 22370	22370	ggg ggc agt aaa atc Gly Gly Ser Lys Ile 22375	22375	att ggc tac tgg gtt Ile Gly Tyr Trp Val 22380		67272
gag aag aaa gaa cgt Glu Lys Lys Glu Arg 22385	22385	aat aca att ctt tgg Asn Thr Ile Leu Trp 22390	22390	gtg aaa gaa aac aaa Val Lys Glu Asn Lys 22395		67317
gtg cca tgc tta gag Val Pro Cys Leu Glu 22400	22400	tgc aac tac aaa gta Cys Asn Tyr Lys Val 22405	22405	act ggt tta gta gaa Thr Gly Leu Val Glu 22410		67362
gga ctg gaa tat cag Gly Leu Glu Tyr Gln 22415	22415	ttc aga act tat gca Phe Arg Thr Tyr Ala 22420	22420	ctc aat gct gca ggt Leu Asn Ala Ala Gly 22425		67407
gtt agc aag gcc agc Val Ser Lys Ala Ser 22430	22430	gaa gct tca aga cct Glu Ala Ser Arg Pro 22435	22435	ata atg gct caa aat Ile Met Ala Gln Asn 22440		67452
cca gtt gat gca cca Pro Val Asp Ala Pro 22445	22445	ggc aga cca gag gtg Gly Arg Pro Glu Val 22450	22450	aca gat gtc aca aga Thr Asp Val Thr Arg 22455		67497

tca aca gta tca ctg	att tgg tct gcc cca	gcg tat gat gga ggc	67542
Ser Thr Val Ser Leu	Ile Trp Ser Ala Pro	Ala Tyr Asp Gly Gly	
22460	22465	22470	
agc aag gtt gtg ggc	tac atc ata gag cgt	aag cca gtc agt gag	67587
Ser Lys Val Val Gly	Tyr Ile Ile Glu Arg	Lys Pro Val Ser Glu	
22475	22480	22485	
gta gga gat ggt cgc	tgg ctg aag tgc aac	tac acc att gta tct	67632
Val Gly Asp Gly Arg	Trp Leu Lys Cys Asn	Tyr Thr Ile Val Ser	
22490	22495	22500	
gac aat ttc ttc acc	gtg act gct ctc agt	gaa gga gac act tat	67677
Asp Asn Phe Phe Thr	Val Thr Ala Leu Ser	Glu Gly Asp Thr Tyr	
22505	22510	22515	
gag ttc cgt gtg tta	gcc aag aat gca gca	ggc gta att agc aaa	67722
Glu Phe Arg Val Leu	Ala Lys Asn Ala Ala	Gly Val Ile Ser Lys	
22520	22525	22530	
ggg tct gaa tct aca	ggc cct gtc act tgc	cga gat gaa tac gct	67767
Gly Ser Glu Ser Thr	Gly Pro Val Thr Cys	Arg Asp Glu Tyr Ala	
22535	22540	22545	
cca ccc aaa gcc gaa	ctg gat gcc cga tta	cac ggt gat ctg gtt	67812
Pro Pro Lys Ala Glu	Leu Asp Ala Arg Leu	His Gly Asp Leu Val	
22550	22555	22560	
acc atc aga gca ggt	tct gat ctt gtt ctg	gat gct gca gtt ggt	67857
Thr Ile Arg Ala Gly	Ser Asp Leu Val Leu	Asp Ala Ala Val Gly	
22565	22570	22575	
ggc aaa cct gaa ccc	aaa att atc tgg acc	aaa gga gac aag gag	67902
Gly Lys Pro Glu Pro	Lys Ile Ile Trp Thr	Lys Gly Asp Lys Glu	
22580	22585	22590	
cta gat ctc tgt gaa	aaa gtc tct ttg cag	tat act ggc aaa cga	67947
Leu Asp Leu Cys Glu	Lys Val Ser Leu Gln	Tyr Thr Gly Lys Arg	
22595	22600	22605	
gca act gct gtg atc	aag ttc tgt gac aga	agt gac agt gga aaa	67992
Ala Thr Ala Val Ile	Lys Phe Cys Asp Arg	Ser Asp Ser Gly Lys	
22610	22615	22620	
tac act tta aca gtg	aaa aat gcc agc ggg	acc aag gcc gtg tct	68037
Tyr Thr Leu Thr Val	Lys Asn Ala Ser Gly	Thr Lys Ala Val Ser	
22625	22630	22635	
gtc atg gtc aaa gtg	ctt gat tcc cct gcc	cca tgt gga aag ctc	68082
Val Met Val Lys Val	Leu Asp Ser Pro Gly	Pro Cys Gly Lys Leu	
22640	22645	22650	
acc gtc agc aga gta	aca cag gag aag tgc	act tta gcc tgg agc	68127
Thr Val Ser Arg Val	Thr Gln Glu Lys Cys	Thr Leu Ala Trp Ser	
22655	22660	22665	
ctt ccg cag gaa gac	gga gga gca gaa atc	act cac tac atc gtg	68172
Leu Pro Gln Glu Asp	Gly Gly Ala Glu Ile	Thr His Tyr Ile Val	

22670	22675	22680	
gaa aga cgc gag act	agc agg ctc aac tgg	gtg att gtt gaa ggc	68217
Glu Arg Arg Glu Thr	Ser Arg Leu Asn Trp	Val Ile Val Glu Gly	
22685	22690	22695	
gaa tgc cca acc cta	tcc tat gtc gtt acc	agg ctc atc aag aac	68262
Glu Cys Pro Thr Leu	Ser Tyr Val Val Thr	Arg Leu Ile Lys Asn	
22700	22705	22710	
aat gag tac ata ttc	cga gtg agg gca gta	aac aaa tat ggc cct	68307
Asn Glu Tyr Ile Phe	Arg Val Arg Ala Val	Asn Lys Tyr Gly Pro	
22715	22720	22725	
ggt gtg cct gtt gaa	tca gag cca att gta	gcc aga aac tca ttc	68352
Gly Val Pro Val Glu	Ser Glu Pro Ile Val	Ala Arg Asn Ser Phe	
22730	22735	22740	
act att cca tca cca	ccc ggc ata cct gaa	gaa gtt ggg act ggc	68397
Thr Ile Pro Ser Pro	Pro Gly Ile Pro Glu	Glu Val Gly Thr Gly	
22745	22750	22755	
aaa gag cat atc atc	att cag tgg aca aaa	cct gaa tct gat ggt	68442
Lys Glu His Ile Ile	Ile Gln Trp Thr Lys	Pro Glu Ser Asp Gly	
22760	22765	22770	
ggc aat gaa atc agc	aac tac cta gta gac	aaa cgt gag aag gag	68487
Gly Asn Glu Ile Ser	Asn Tyr Leu Val Asp	Lys Arg Glu Lys Glu	
22775	22780	22785	
agc ctg cgc tgg aca	cgt gtc aac aaa gac	tat gtg gtg tat gat	68532
Ser Leu Arg Trp Thr	Arg Val Asn Lys Asp	Tyr Val Val Tyr Asp	
22790	22795	22800	
acc agg ctg aag gtg	acc agc ctg atg gag	ggt tgt gat tac cag	68577
Thr Arg Leu Lys Val	Thr Ser Leu Met Glu	Gly Cys Asp Tyr Gln	
22805	22810	22815	
ttc cgg gtg acc gca	gtg aat gca gct ggt	aac agt gag ccc agc	68622
Phe Arg Val Thr Ala	Val Asn Ala Ala Gly	Asn Ser Glu Pro Ser	
22820	22825	22830	
gaa cgt tcc aac ttc	atc tca tgc aga gaa	cca tca tat acc cct	68667
Glu Arg Ser Asn Phe	Ile Ser Cys Arg Glu	Pro Ser Tyr Thr Pro	
22835	22840	22845	
gga cca cct tct gct	cca aga gtt gtg gat	acc acc aaa cac agc	68712
Gly Pro Pro Ser Ala	Pro Arg Val Val Asp	Thr Thr Lys His Ser	
22850	22855	22860	
att agt ttg gca tgg	acc aaa ccc atg tac	gat ggt ggt act gac	68757
Ile Ser Leu Ala Trp	Thr Lys Pro Met Tyr	Asp Gly Gly Thr Asp	
22865	22870	22875	
att gta gga tat gtt	ctg gaa atg caa gag	aag gac act gat cag	68802
Ile Val Gly Tyr Val	Leu Glu Met Gln Glu	Lys Asp Thr Asp Gln	
22880	22885	22890	

tgg tac cga gtg cat	acc aat gcc aca ata	aga aat act gaa ttc	68847
Trp Tyr Arg Val His	Thr Asn Ala Thr Ile	Arg Asn Thr Glu Phe	
22895	22900	22905	
act gtg cca gac ctt	aaa atg ggc cag aaa	tat tcc ttc aga gtt	68892
Thr Val Pro Asp Leu	Lys Met Gly Gln Lys	Tyr Ser Phe Arg Val	
22910	22915	22920	
gct gcc gtg aac gtg	aag ggt atg agc gaa	tac agc gaa tca att	68937
Ala Ala Val Asn Val	Lys Gly Met Ser Glu	Tyr Ser Glu Ser Ile	
22925	22930	22935	
gct gaa att gag ccc	gtg gaa aga ata gaa	ata cca gat ctt gag	68982
Ala Glu Ile Glu Pro	Val Glu Arg Ile Glu	Ile Pro Asp Leu Glu	
22940	22945	22950	
ctt gca gat gat cta	aag aag act gtg acc	atc agg gct ggg gcc	69027
Leu Ala Asp Asp Leu	Lys Lys Thr Val Thr	Ile Arg Ala Gly Ala	
22955	22960	22965	
tcc ttg cgc ttg atg	gtg tct gta tct gga	aga cca cct cct gtc	69072
Ser Leu Arg Leu Met	Val Ser Val Ser Gly	Arg Pro Pro Pro Val	
22970	22975	22980	
ata acg tgg agc aag	cag ggc att gac ctt	gca agc cgg gca att	69117
Ile Thr Trp Ser Lys	Gln Gly Ile Asp Leu	Ala Ser Arg Ala Ile	
22985	22990	22995	
att gac acc act gag	agc tac tca ttg cta	ata gtg gac aaa gtt	69162
Ile Asp Thr Thr Glu	Ser Tyr Ser Leu Leu	Ile Val Asp Lys Val	
23000	23005	23010	
aat cgg tac gat gct	gga aaa tac aca att	gaa gct gaa aac caa	69207
Asn Arg Tyr Asp Ala	Gly Lys Tyr Thr Ile	Glu Ala Glu Asn Gln	
23015	23020	23025	
tct ggc aag aaa tca	gca aca gtc ctt gtt	aaa gtc tat gat act	69252
Ser Gly Lys Lys Ser	Ala Thr Val Leu Val	Lys Val Tyr Asp Thr	
23030	23035	23040	
cct ggt ccc tgt cct	tca gtg aaa gtt aag	gaa gta tca aga gat	69297
Pro Gly Pro Cys Pro	Ser Val Lys Val Lys	Glu Val Ser Arg Asp	
23045	23050	23055	
tct gtg act ata act	tgg gaa att ccc acg	att gat ggt gga gct	69342
Ser Val Thr Ile Thr	Trp Glu Ile Pro Thr	Ile Asp Gly Gly Ala	
23060	23065	23070	
cca atc aac aat tac	atc gtt gag aag cgt	gaa gct gct atg aga	69387
Pro Ile Asn Asn Tyr	Ile Val Glu Lys Arg	Glu Ala Ala Met Arg	
23075	23080	23085	
gca ttc aaa aca gta	act acc aaa tgc agc	aag aca ctt tac aga	69432
Ala Phe Lys Thr Val	Thr Thr Lys Cys Ser	Lys Thr Leu Tyr Arg	
23090	23095	23100	
att tct gga ctt gta	gaa gga acc atg cac	tat ttc aga gtg ctg	69477
Ile Ser Gly Leu Val	Glu Gly Thr Met His	Tyr Phe Arg Val Leu	

cca gaa aat att tat	ggc att gga gaa cct	tgt gaa aca tct gat	69522
Pro Glu Asn Ile Tyr	Gly Ile Gly Glu Pro	Cys Glu Thr Ser Asp	
23120	23125	23130	
gca gta ctg gtc tca	gaa gtg cct ttg gtg	cct gca aag cta gaa	69567
Ala Val Leu Val Ser	Glu Val Pro Leu Val	Pro Ala Lys Leu Glu	
23135	23140	23145	
gtg gtc gat gtc acc	aaa tcc act gtt acc	ctt gcc tgg gaa aaa	69612
Val Val Asp Val Thr	Lys Ser Thr Val Thr	Leu Ala Trp Glu Lys	
23150	23155	23160	
cca ctc tac gat ggt	ggc agc cga ctc act	gga tat gtt ctc gag	69657
Pro Leu Tyr Asp Gly	Gly Ser Arg Leu Thr	Gly Tyr Val Leu Glu	
23165	23170	23175	
gcc tgc aaa gct ggc	aca gag aga tgg atg	aag gtt gtc acc tta	69702
Ala Cys Lys Ala Gly	Thr Glu Arg Trp Met	Lys Val Val Thr Leu	
23180	23185	23190	
aaa ccc aca gtc cta	gag cac act gtt act	tcc tta aat gaa ggt	69747
Lys Pro Thr Val Leu	Glu His Thr Val Thr	Ser Leu Asn Glu Gly	
23195	23200	23205	
gaa caa tac tta ttt	aga ata agg gca caa	aat gag aaa ggt gtg	69792
Glu Gln Tyr Leu Phe	Arg Ile Arg Ala Gln	Asn Glu Lys Gly Val	
23210	23215	23220	
tca gaa cca aga gag	act gtc aca gcc gtg	act gta caa gac ctc	69837
Ser Glu Pro Arg Glu	Thr Val Thr Ala Val	Thr Val Gln Asp Leu	
23225	23230	23235	
aga gtg ttg cca aca	atc gat ctt tct aca	atg cct cag aag acc	69882
Arg Val Leu Pro Thr	Ile Asp Leu Ser Thr	Met Pro Gln Lys Thr	
23240	23245	23250	
atc cat gtc cca gct	ggc aga cca gta gag	ctg gtg ata cct att	69927
Ile His Val Pro Ala	Gly Arg Pro Val Glu	Leu Val Ile Pro Ile	
23255	23260	23265	
gct ggc cgt cca cct	cct gct gct tcc tgg	ttc ttt gct ggt tct	69972
Ala Gly Arg Pro Pro	Pro Ala Ala Ser Trp	Phe Phe Ala Gly Ser	
23270	23275	23280	
aaa ctg aga gaa tca	gag cgt gtc aca gtt	gaa act cac act aaa	70017
Lys Leu Arg Glu Ser	Glu Arg Val Thr Val	Glu Thr His Thr Lys	
23285	23290	23295	
gta gct aaa tta acc	atc cgt gaa acc act	atc aga gat act gga	70062
Val Ala Lys Leu Thr	Ile Arg Glu Thr Thr	Ile Arg Asp Thr Gly	
23300	23305	23310	
gaa tac aca ctt gaa	ttg aag aat gtt acc	gga act act tca gaa	70107
Glu Tyr Thr Leu Glu	Leu Lys Asn Val Thr	Gly Thr Thr Ser Glu	
23315	23320	23325	

acc att aaa gtt atc Thr Ile Lys Val 23330	att ctt gac aag cct Ile Leu Asp Lys Pro 23335	ggg cca cca aca gga Gly Pro Pro Thr 23340	70152
cct att aag att gat Pro Ile Lys Ile Asp 23345	gaa att gat gct aca Glu Ile Asp Ala Thr 23350	tca att acc att tcc Ser Ile Thr Ile Ser 23355	70197
tgg gaa cca cct gaa Trp Glu Pro Pro Glu 23360	ttg gac ggt ggt gct Leu Asp Gly Gly Ala 23365	cca ctg agt ggt tat Pro Leu Ser Gly Tyr 23370	70242
gtg gta gaa caa cgt Val Val Glu Gln Arg 23375	gac gct cat cgt cca Asp Ala His Arg Pro 23380	gga tgg ctg ccc gtt Gly Trp Leu Pro Val 23385	70287
tct gaa tca gtg act Ser Glu Ser Val Thr 23390	agg tcc acg ttt aag Arg Ser Thr Phe Lys 23395	ttt acc aga ctc acc Phe Thr Arg Leu Thr 23400	70332
gaa gga aat gag tat Glu Gly Asn Glu Tyr 23405	gtg ttc cgt gtg gct Val Phe Arg Val Ala 23410	gca aca aac cgc ttc Ala Thr Asn Arg Phe 23415	70377
ggg att ggc tct tac Gly Ile Gly Ser Tyr 23420	ttg cag tct gag gtc Leu Gln Ser Glu Val 23425	ata gag tgt cgc agc Ile Glu Cys Arg Ser 23430	70422
agc atc cgt att cct Ser Ile Arg Ile Pro 23435	gga ccc cca gaa aca Gly Pro Pro Glu Thr 23440	tta cag ata ttt gat Leu Gln Ile Phe Asp 23445	70467
gtt tcc cgt gat ggc Val Ser Arg Asp Gly 23450	atg aca ctt act tgg Met Thr Leu Thr Trp 23455	tac cca cca gag gat Tyr Pro Pro Glu Asp 23460	70512
gac ggt ggc tcc caa Asp Gly Gly Ser Gln 23465	gtg act gga tat att Val Thr Gly Tyr Ile 23470	gtg gag cgc aaa gaa Val Glu Arg Lys Glu 23475	70557
gtg aga gca gat cga Val Arg Ala Asp Arg 23480	tgg gtc cgt gta aat Trp Val Arg Val Asn 23485	aaa gta cct gtg aca Lys Val Pro Val Thr 23490	70602
atg aca cgg tac cgc Met Thr Arg Tyr Arg 23495	tcc act ggc ctt act Ser Thr Gly Leu Thr 23500	gaa ggc tta gaa tat Glu Gly Leu Glu Tyr 23505	70647
gaa cac cgt gtc aca Glu His Arg Val Thr 23510	gcc att aat gca aga Ala Ile Asn Ala Arg 23515	ggg tct ggg aaa cca Gly Ser Gly Lys Pro 23520	70692
agt cgt cct tcc aaa Ser Arg Pro Ser Lys 23525	ccc atc gtt gcc atg Pro Ile Val Ala Met 23530	gat cca att gct cct Asp Pro Ile Ala Pro 23535	70737
cca gga aag cca caa Pro Gly Lys Pro Gln	aac cca aga gtt act Asn Pro Arg Val Thr	gat aca aca agg aca Asp Thr Thr Arg Thr	70782

23540	23545	23550	
tca gtc tcc ctg gcc	tgg agt gtt cca gaa	gat gaa gga gga tct	70827
Ser Val Ser Leu Ala	Trp Ser Val Pro Glu	Asp Glu Gly Gly Ser	
23555	23560	23565	
aaa gtc aca ggc tac	ttg att gaa atg caa	aaa gta gat caa cat	70872
Lys Val Thr Gly Tyr	Leu Ile Glu Met Gln	Lys Val Asp Gln His	
23570	23575	23580	
gaa tgg acc aag tgt	aac acc act cca acc	aag att cga gag tat	70917
Glu Trp Thr Lys Cys	Asn Thr Thr Pro Thr	Lys Ile Arg Glu Tyr	
23585	23590	23595	
act cta aca cac cta	cct cag ggt gca gaa	tac agg ttc cgc gtc	70962
Thr Leu Thr His Leu	Pro Gln Gly Ala Glu	Tyr Arg Phe Arg Val	
23600	23605	23610	
cta gct tgt aat gct	ggg gga cct ggt gag	cct gct gag gta cca	71007
Leu Ala Cys Asn Ala	Gly Gly Pro Gly Glu	Pro Ala Glu Val Pro	
23615	23620	23625	
gga aca gtc aaa gtc	act gaa atg ctt gaa	tat cct gat tat gaa	71052
Gly Thr Val Lys Val	Thr Glu Met Leu Glu	Tyr Pro Asp Tyr Glu	
23630	23635	23640	
ctt gat gaa aga tac	caa gaa ggt atc ttt	gta agg caa ggt ggc	71097
Leu Asp Glu Arg Tyr	Gln Glu Gly Ile Phe	Val Arg Gln Gly Gly	
23645	23650	23655	
gtc atc aga ctt acc	ata cca atc aaa gga	aaa cca ttc cca ata	71142
Val Ile Arg Leu Thr	Ile Pro Ile Lys Gly	Lys Pro Phe Pro Ile	
23660	23665	23670	
tgt aaa tgg acc aag	gaa ggc cag gat att	agt aag cgt gcc atg	71187
Cys Lys Trp Thr Lys	Glu Gly Gln Asp Ile	Ser Lys Arg Ala Met	
23675	23680	23685	
att gca aca tct gaa	aca cac act gag ctt	gtg atc aaa gaa gca	71232
Ile Ala Thr Ser Glu	Thr His Thr Glu Leu	Val Ile Lys Glu Ala	
23690	23695	23700	
gac agg ggt gat tct	ggc act tat gac ctg	gtt ctg gaa aat aaa	71277
Asp Arg Gly Asp Ser	Gly Thr Tyr Asp Leu	Val Leu Glu Asn Lys	
23705	23710	23715	
tgt ggc aag aag gct	gtc tac atc aag gtc	agg gtg ata gga agt	71322
Cys Gly Lys Lys Ala	Val Tyr Ile Lys Val	Arg Val Ile Gly Ser	
23720	23725	23730	
ccc aac agt cca gaa	ggg cca ctg gaa tat	gat gac atc caa gtc	71367
Pro Asn Ser Pro Glu	Gly Pro Leu Glu Tyr	Asp Asp Ile Gln Val	
23735	23740	23745	
cgc tct gtg agg gtc	agc tgg aga cct cct	gct gat gat ggt ggt	71412
Arg Ser Val Arg Val	Ser Trp Arg Pro Pro	Ala Asp Asp Gly Gly	
23750	23755	23760	

gct gac atc tta ggc Ala Asp Ile Leu Gly 23765	tac atc ctc gag aga Tyr Ile Leu Glu Arg 23770	cga gaa gtg cct aaa Arg Glu Val Pro Lys 23775	71457
gcc gcc tgg tat acc Ala Ala Trp Tyr Thr 23780	att gat tcc aga gtc Ile Asp Ser Arg Val 23785	cga ggt aca tct ctg Arg Gly Thr Ser Leu 23790	71502
gtg gta aaa ggc ctc Val Val Lys Gly Leu 23795	aaa gag aat gta gaa Lys Glu Asn Val Glu 23800	tac cat ttc cgt gtt Tyr His Phe Arg Val 23805	71547
tca gca gaa aac cag Ser Ala Glu Asn Gln 23810	ttt ggc ata agc aaa Phe Gly Ile Ser Lys 23815	ccc ttg aaa tct gag Pro Leu Lys Ser Glu 23820	71592
gaa cca gtc aca cca Glu Pro Val Thr Pro 23825	aaa aca cca ttg aat Lys Thr Pro Leu Asn 23830	cct cca gaa cct cca Pro Pro Glu Pro Pro 23835	71637
agc aat cct cca gaa Ser Asn Pro Pro Glu 23840	gta ctc gat gta acc Val Leu Asp Val Thr 23845	aag agt tct gtt agc Lys Ser Ser Val Ser 23850	71682
ttg tcc tgg tcc cgg Leu Ser Trp Ser Arg 23855	ccc aaa gat gat ggt Pro Lys Asp Asp Gly 23860	ggt tct aga gtc aca Gly Ser Arg Val Thr 23865	71727
ggc tac tac atc gaa Gly Tyr Tyr Ile Glu 23870	cgc aaa gag aca tcc Arg Lys Glu Thr Ser 23875	act gac aag tgg gtc Thr Asp Lys Trp Val 23880	71772
aga cac aac aag act Arg His Asn Lys Thr 23885	cag atc acc acc aca Gln Ile Thr Thr Thr 23890	atg tac act gtc aca Met Tyr Thr Val Thr 23895	71817
ggg ctt gtt ccc gat Gly Leu Val Pro Asp 23900	gct gag tat cag ttc Ala Glu Tyr Gln Phe 23905	cgc atc atc gca cag Arg Ile Ile Ala Gln 23910	71862
aat gat gtt ggc ctg Asn Asp Val Gly Leu 23915	agt gag acc agc cct Ser Glu Thr Ser Pro 23920	gct tct gaa cca gtt Ala Ser Glu Pro Val 23925	71907
gtt tgc aaa gat cca Val Cys Lys Asp Pro 23930	ttt gat aaa cca agc Phe Asp Lys Pro Ser 23935	caa cca gga gaa ctt Gln Pro Gly Glu Leu 23940	71952
gag att ctt tca ata Glu Ile Leu Ser Ile 23945	tcc aaa gat agt gtc Ser Lys Asp Ser Val 23950	act cta cag tgg gag Thr Leu Gln Trp Glu 23955	71997
aaa cct gaa tgt gat Lys Pro Glu Cys Asp 23960	ggt ggt aaa gaa att Gly Gly Lys Glu Ile 23965	ctt gga tac tgg gtt Leu Gly Tyr Trp Val 23970	72042
gaa tat aga cag tct Glu Tyr Arg Gln Ser	gga gac agt gcc tgg Gly Asp Ser Ala Trp	aag aag agc aat aag Lys Lys Ser Asn Lys	72087

23975					23980					23985					
gaa	cgt	att	aag	gac	aag	caa	ttc	aca	ata	gga	ggt	ttg	ctg	gaa	72132
Glu	Arg	Ile	Lys	Asp	Lys	Gln	Phe	Thr	Ile	Gly	Gly	Leu	Leu	Glu	
				23990					23995					24000	
gct	act	gag	tat	gaa	ttc	agg	gtt	ttt	gct	gag	aat	gag	act	ggg	72177
Ala	Thr	Glu	Tyr	Glu	Phe	Arg	Val	Phe	Ala	Glu	Asn	Glu	Thr	Gly	
				24005					24010					24015	
ctg	agc	aga	cct	cgc	aga	act	gct	atg	tct	ata	aag	act	aaa	ctc	72222
Leu	Ser	Arg	Pro	Arg	Arg	Thr	Ala	Met	Ser	Ile	Lys	Thr	Lys	Leu	
				24020					24025					24030	
aca	tct	gga	gag	gcc	cca	gga	ata	cgc	aaa	gaa	atg	aag	gat	gtt	72267
Thr	Ser	Gly	Glu	Ala	Pro	Gly	Ile	Arg	Lys	Glu	Met	Lys	Asp	Val	
				24035					24040					24045	
acc	aca	aaa	ttg	ggt	gaa	gct	gct	caa	ctc	tca	tgc	cag	att	gtt	72312
Thr	Thr	Lys	Leu	Gly	Glu	Ala	Ala	Gln	Leu	Ser	Cys	Gln	Ile	Val	
				24050					24055					24060	
gga	agg	cct	ctt	cct	gac	att	aaa	tgg	tac	aga	ttt	ggt	aaa	gag	72357
Gly	Arg	Pro	Leu	Pro	Asp	Ile	Lys	Trp	Tyr	Arg	Phe	Gly	Lys	Glu	
				24065					24070					24075	
ctc	ata	caa	agc	cgg	aaa	tac	aaa	atg	tct	tca	gat	gga	cgc	aca	72402
Leu	Ile	Gln	Ser	Arg	Lys	Tyr	Lys	Met	Ser	Ser	Asp	Gly	Arg	Thr	
				24080					24085					24090	
cac	act	ctt	aca	gta	atg	aca	gag	gaa	cag	gaa	gat	gaa	ggt	gtt	72447
His	Thr	Leu	Thr	Val	Met	Thr	Glu	Glu	Gln	Glu	Asp	Glu	Gly	Val	
				24095					24100					24105	
tat	acc	tgc	ata	gcc	acc	aat	gag	gtt	gga	gaa	gta	gaa	acc	agt	72492
Tyr	Thr	Cys	Ile	Ala	Thr	Asn	Glu	Val	Gly	Glu	Val	Glu	Thr	Ser	
				24110					24115					24120	
agt	aag	ctt	ctc	ctg	caa	gca	aca	ccg	cag	ttc	cat	cct	ggt	tac	72537
Ser	Lys	Leu	Leu	Leu	Gln	Ala	Thr	Pro	Gln	Phe	His	Pro	Gly	Tyr	
				24125					24130					24135	
cca	ctg	aaa	gag	aaa	tat	tat	gga	gct	gtg	ggt	tcc	aca	ctt	cgg	72582
Pro	Leu	Lys	Glu	Lys	Tyr	Tyr	Gly	Ala	Val	Gly	Ser	Thr	Leu	Arg	
				24140					24145					24150	
ctt	cat	gtt	atg	tac	att	ggt	cgt	cca	gta	cct	gcc	atg	act	tgg	72627
Leu	His	Val	Met	Tyr	Ile	Gly	Arg	Pro	Val	Pro	Ala	Met	Thr	Trp	
				24155					24160					24165	
ttc	cat	ggt	cag	aaa	ctt	ttg	caa	aac	tca	gaa	aac	att	act	att	72672
Phe	His	Gly	Gln	Lys	Leu	Leu	Gln	Asn	Ser	Glu	Asn	Ile	Thr	Ile	
				24170					24175					24180	
gaa	aac	act	gag	cac	tat	act	cat	ctt	gtc	atg	aag	aat	gtc	caa	72717
Glu	Asn	Thr	Glu	His	Tyr	Thr	His	Leu	Val	Met	Lys	Asn	Val	Gln	
				24185					24190					24195	

cgt aag act cat gct Arg Lys Thr His 24200	ggg aaa tac aaa gtc Gly Lys Tyr Lys 24205	cag ctc agc aat gtt Gln Leu Ser Asn 24210	72762
ttt gga aca gtt gat Phe Gly Thr Val 24215	gcc atc ctt gat gtg Ala Ile Leu Asp 24220	gaa ata caa gat aaa Glu Ile Gln Asp 24225	72807
cca gac aaa cct aca Pro Asp Lys Pro 24230	gga cca att gtg atc Gly Pro Ile Val 24235	gaa gct cta ttg aag Glu Ala Leu Leu 24240	72852
aac tcc gca gtg atc Asn Ser Ala Val 24245	agc tgg aaa cca ccc Ser Trp Lys Pro 24250	gca gat gac gga ggc Ala Asp Asp Gly 24255	72897
tcc tgg atc acc aac Ser Trp Ile Thr 24260	tat gtg gtg gaa aaa Tyr Val Val Glu 24265	tgt gag gcc aag gag Cys Glu Ala Lys 24270	72942
ggg gct gaa tgg caa Gly Ala Glu Trp 24275	ttg gtg tct tca gcc Leu Val Ser Ser 24280	atc tca gtg aca acc Ile Ser Val Thr 24285	72987
tgt aga att gtg aac Cys Arg Ile Val 24290	ctc aca gaa aat gct Leu Thr Glu Asn 24295	ggc tat tac ttc cgg Gly Tyr Tyr Phe 24300	73032
gtt tca gct cag aac Val Ser Ala Gln 24305	act ttc ggc atc agt Thr Phe Gly Ile 24310	gac cct cta gaa gtg Asp Pro Leu Glu 24315	73077
tcc tca gtt gtg atc Ser Ser Val Val 24320	att aag agt cca ttt Ile Lys Ser Pro 24325	gaa aag cca ggt gct Glu Lys Pro Gly 24330	73122
cct ggc aaa cca act Pro Gly Lys Pro 24335	att act gct gtc aca Ile Thr Ala Val 24340	aaa gat tct tgt gtt Lys Asp Ser Cys 24345	73167
gtg gcc tgg aag cca Val Ala Trp Lys 24350	cct gcc agt gat gga Pro Ala Ser Asp 24355	ggg gca aag att aga Gly Ala Lys Ile 24360	73212
aat tac tac ctt gag Asn Tyr Tyr Leu 24365	aag cgt gag aag aag Lys Arg Glu Lys 24370	cag aat aaa tgg att Gln Asn Lys Trp 24375	73257
tct gtg aca aca gaa Ser Val Thr Thr 24380	gaa att cga gaa act Glu Ile Arg Glu 24385	gtc ttt tca gtg aaa Val Phe Ser Val 24390	73302
aac ctt att gaa ggt Asn Leu Ile Glu 24395	ctt gaa tac gag ttt Leu Glu Tyr Glu 24400	cgt gtg aaa tgt gaa Arg Val Lys Cys 24405	73347
aat cta ggt ggg gaa Asn Leu Gly Gly 24410	agt gaa tgg agt gaa Ser Glu Trp Ser 24415	ata tca gaa ccc atc Ile Ser Glu Pro 24420	73392

24410					24415					24420					
act	ccc	aaa	tct	gat	gtc	cca	att	cag	gca	cca	cac	ttt	aaa	gag	73437
Thr	Pro	Lys	Ser	Asp	Val	Pro	Ile	Gln	Ala	Pro	His	Phe	Lys	Glu	
				24425					24430					24435	
gaa	ctg	aga	aat	cta	aat	gtc	aga	tat	cag	agc	aat	gct	acc	ttg	73482
Glu	Leu	Arg	Asn	Leu	Asn	Val	Arg	Tyr	Gln	Ser	Asn	Ala	Thr	Leu	
				24440					24445					24450	
gtc	tgc	aaa	gtg	act	ggc	cat	cca	aaa	cct	atc	gtc	aaa	tggt	tac	73527
Val	Cys	Lys	Val	Thr	Gly	His	Pro	Lys	Pro	Ile	Val	Lys	Trp	Tyr	
				24455					24460					24465	
aga	caa	ggc	aaa	gaa	atc	att	gca	gat	gga	tta	aaa	tat	agg	att	73572
Arg	Gln	Gly	Lys	Glu	Ile	Ile	Ala	Asp	Gly	Leu	Lys	Tyr	Arg	Ile	
				24470					24475					24480	
caa	gaa	ttt	aag	ggc	ggc	tac	cac	cag	ctc	atc	att	gca	agt	gtc	73617
Gln	Glu	Phe	Lys	Gly	Gly	Tyr	His	Gln	Leu	Ile	Ile	Ala	Ser	Val	
				24485					24490					24495	
aca	gat	gat	gat	gcc	aca	gtt	tac	caa	gtc	aga	gct	acc	aac	caa	73662
Thr	Asp	Asp	Asp	Ala	Thr	Val	Tyr	Gln	Val	Arg	Ala	Thr	Asn	Gln	
				24500					24505					24510	
ggg	gga	tct	gtg	tct	ggc	act	gcc	tcc	ttg	gaa	gtg	gaa	gtt	cca	73707
Gly	Gly	Ser	Val	Ser	Gly	Thr	Ala	Ser	Leu	Glu	Val	Glu	Val	Pro	
				24515					24520					24525	
gct	aag	ata	cac	tta	cct	aaa	act	ctt	gaa	ggc	atg	gga	gca	gtt	73752
Ala	Lys	Ile	His	Leu	Pro	Lys	Thr	Leu	Glu	Gly	Met	Gly	Ala	Val	
				24530					24535					24540	
cat	gct	ctc	cga	ggc	gaa	gtg	gtc	agc	atc	aag	att	cct	ttc	agt	73797
His	Ala	Leu	Arg	Gly	Glu	Val	Val	Ser	Ile	Lys	Ile	Pro	Phe	Ser	
				24545					24550					24555	
ggc	aaa	cca	gat	cct	gtg	atc	acc	tggt	cag	aaa	gga	caa	gat	ctc	73842
Gly	Lys	Pro	Asp	Pro	Val	Ile	Thr	Trp	Gln	Lys	Gly	Gln	Asp	Leu	
				24560					24565					24570	
att	gac	aat	aat	ggc	cac	tac	caa	gtt	att	gtc	aca	aga	tcc	ttc	73887
Ile	Asp	Asn	Asn	Gly	His	Tyr	Gln	Val	Ile	Val	Thr	Arg	Ser	Phe	
				24575					24580					24585	
aca	tca	ctt	gtt	ttc	ccc	aat	ggg	gta	gag	aga	aaa	gat	gct	ggc	73932
Thr	Ser	Leu	Val	Phe	Pro	Asn	Gly	Val	Glu	Arg	Lys	Asp	Ala	Gly	
				24590					24595					24600	
ttc	tat	gtg	gtc	tgt	gct	aaa	aac	aga	ttt	gga	att	gat	cag	aag	73977
Phe	Tyr	Val	Val	Cys	Ala	Lys	Asn	Arg	Phe	Gly	Ile	Asp	Gln	Lys	
				24605					24610					24615	
aca	gtt	gaa	ctg	gat	gtg	gct	gat	gtt	cct	gac	cca	ccc	aga	gga	74022
Thr	Val	Glu	Leu	Asp	Val	Ala	Asp	Val	Pro	Asp	Pro	Pro	Arg	Gly	
				24620					24625					24630	

gtc aaa gtt agt gat	gcc tca cga gat tct	gtc aac tta aca tgg	74067
Val Lys Val Ser Asp	Ala Ser Arg Asp Ser	Val Asn Leu Thr Trp	
24635	24640	24645	
act gag cca gcc tct	gat ggt ggc agc aaa	atc acc aac tac att	74112
Thr Glu Pro Ala Ser	Asp Gly Gly Ser Lys	Ile Thr Asn Tyr Ile	
24650	24655	24660	
gtt gaa aaa tgt gca	act act gca gaa aga	tgg ctc cgt gta gga	74157
Val Glu Lys Cys Ala	Thr Thr Ala Glu Arg	Trp Leu Arg Val Gly	
24665	24670	24675	
cag gcc cga gaa aca	cgt tat acc gtg atc	aac tta ttt gga aaa	74202
Gln Ala Arg Glu Thr	Arg Tyr Thr Val Ile	Asn Leu Phe Gly Lys	
24680	24685	24690	
aca agt tac cag ttc	cgg gta ata gct gaa	aat aaa ttt ggt ctg	74247
Thr Ser Tyr Gln Phe	Arg Val Ile Ala Glu	Asn Lys Phe Gly Leu	
24695	24700	24705	
agc aag cct tca gag	cct tca gaa cca acc	ata acc aaa gaa gat	74292
Ser Lys Pro Ser Glu	Pro Ser Glu Pro Thr	Ile Thr Lys Glu Asp	
24710	24715	24720	
aag acc aga gct atg	aac tat gat gaa gag	gta gat gaa acc agg	74337
Lys Thr Arg Ala Met	Asn Tyr Asp Glu Glu	Val Asp Glu Thr Arg	
24725	24730	24735	
gaa gtc tcc atg act	aaa gca tct cac tct	tca acc aag gaa ctc	74382
Glu Val Ser Met Thr	Lys Ala Ser His Ser	Ser Thr Lys Glu Leu	
24740	24745	24750	
tat gag aaa tat atg	att gct gaa gat ctt	ggg cgt ggt gag ttt	74427
Tyr Glu Lys Tyr Met	Ile Ala Glu Asp Leu	Gly Arg Gly Glu Phe	
24755	24760	24765	
gga att gtc cat cgt	tgt gtt gaa aca tcc	tca aag aag aca tac	74472
Gly Ile Val His Arg	Cys Val Glu Thr Ser	Ser Lys Lys Thr Tyr	
24770	24775	24780	
atg gcc aaa ttt gtt	aaa gtc aaa ggg act	gat cag gtt ttg gta	74517
Met Ala Lys Phe Val	Lys Val Lys Gly Thr	Asp Gln Val Leu Val	
24785	24790	24795	
aag aag gaa att tcc	att ctg aat att gct	agg cat aga aac atc	74562
Lys Lys Glu Ile Ser	Ile Leu Asn Ile Ala	Arg His Arg Asn Ile	
24800	24805	24810	
tta cac ctc cat gaa	tca ttt gaa agc atg	gaa gaa tta gtt atg	74607
Leu His Leu His Glu	Ser Phe Glu Ser Met	Glu Glu Leu Val Met	
24815	24820	24825	
atc ttt gag ttt ata	tca gga ctt gac ata	ttt gag cgc att aac	74652
Ile Phe Glu Phe Ile	Ser Gly Leu Asp Ile	Phe Glu Arg Ile Asn	
24830	24835	24840	
aca agt gct ttt gaa	ctt aat gaa aga gaa	att gta agt tat gtt	74697
Thr Ser Ala Phe Glu	Leu Asn Glu Arg Glu	Ile Val Ser Tyr Val	

24845	24850	24855	
cac cag gtc tgt gaa	gca ctt cag ttt tta	cac agt cat aat att	74742
His Gln Val Cys Glu	Ala Leu Gln Phe Leu	His Ser His Asn Ile	
24860	24865	24870	
gga cac ttt gac att	aga cca gaa aat atc	att tac caa acc aga	74787
Gly His Phe Asp Ile	Arg Pro Glu Asn Ile	Ile Tyr Gln Thr Arg	
24875	24880	24885	
aga agc tct acc att	aaa atc ata gaa ttt	ggt caa gcc cgt cag	74832
Arg Ser Ser Thr Ile	Lys Ile Ile Glu Phe	Gly Gln Ala Arg Gln	
24890	24895	24900	
ctg aaa cca ggg gac	aac ttc agg ctt cta	ttc act gcc cca gaa	74877
Leu Lys Pro Gly Asp	Asn Phe Arg Leu Leu	Phe Thr Ala Pro Glu	
24905	24910	24915	
tac tat gca cct gaa	gtc cac cag cat gat	gtt gtc agc aca gcc	74922
Tyr Tyr Ala Pro Glu	Val His Gln His Asp	Val Val Ser Thr Ala	
24920	24925	24930	
aca gac atg tgg tca	ctt gga aca ctg gta	tat gtg cta ttg agt	74967
Thr Asp Met Trp Ser	Leu Gly Thr Leu Val	Tyr Val Leu Leu Ser	
24935	24940	24945	
ggt atc aac cca ttc	ctg gct gaa act aac	caa cag atc att gag	75012
Gly Ile Asn Pro Phe	Leu Ala Glu Thr Asn	Gln Gln Ile Ile Glu	
24950	24955	24960	
aat atc atg aat gct	gaa tat act ttc gat	gag gaa gca ttc aaa	75057
Asn Ile Met Asn Ala	Glu Tyr Thr Phe Asp	Glu Glu Ala Phe Lys	
24965	24970	24975	
gag att agc att gaa	gcc atg gat ttt gtt	gac cgg ttg tta gtg	75102
Glu Ile Ser Ile Glu	Ala Met Asp Phe Val	Asp Arg Leu Leu Val	
24980	24985	24990	
aaa gag agg aaa tct	cgc atg aca gca tcg	gag gct ctc cag cac	75147
Lys Glu Arg Lys Ser	Arg Met Thr Ala Ser	Glu Ala Leu Gln His	
24995	25000	25005	
cca tgg ttg aag cag	aag ata gaa aga gtc	agt act aaa gtt atc	75192
Pro Trp Leu Lys Gln	Lys Ile Glu Arg Val	Ser Thr Lys Val Ile	
25010	25015	25020	
aga aca tta aaa cac	cgg cgt tat tac cac	acc ctg atc aag aaa	75237
Arg Thr Leu Lys His	Arg Arg Tyr Tyr His	Thr Leu Ile Lys Lys	
25025	25030	25035	
gac ctc aac atg gtt	gtg tca gca gcc cgg	atc tcc tgt ggt ggt	75282
Asp Leu Asn Met Val	Val Ser Ala Ala Arg	Ile Ser Cys Gly Gly	
25040	25045	25050	
gca att cga tct cag	aag gga gtg agt gtt	gct aaa gtt aaa gtg	75327
Ala Ile Arg Ser Gln	Lys Gly Val Ser Val	Ala Lys Val Lys Val	
25055	25060	25065	

gca tcc att gaa att Ala Ser Ile Glu Ile 25070	ggc cca gtt tct ggg Gly Pro Val Ser Gly 25075	cag ata atg cat gca Gln Ile Met His Ala 25080	75372
gtt ggt gaa gaa gga Val Gly Glu Glu Gly 25085	gga cat gtc aaa tat Gly His Val Lys Tyr 25090	gta tgc aaa att gaa Val Cys Lys Ile Glu 25095	75417
aat tat gat cag tct Asn Tyr Asp Gln Ser 25100	acc caa gtg act tgg Thr Gln Val Thr Trp 25105	tac ttt ggt gtc cga Tyr Phe Gly Val Arg 25110	75462
cag ctg gag aac agt Gln Leu Glu Asn Ser 25115	gag aaa tac gaa atc Glu Lys Tyr Glu Ile 25120	acc tac gaa gat gga Thr Tyr Glu Asp Gly 25125	75507
gtg gcc atc ctc tat Val Ala Ile Leu Tyr 25130	gtc aaa gac att acc Val Lys Asp Ile Thr 25135	aaa tta gat gat ggt Lys Leu Asp Asp Gly 25140	75552
acc tac aga tgc aaa Thr Tyr Arg Cys Lys 25145	gta gtc aat gac tat Val Val Asn Asp Tyr 25150	ggg gaa gac agt tct Gly Glu Asp Ser Ser 25155	75597
tat gca gag cta ttt Tyr Ala Glu Leu Phe 25160	gtt aaa ggt gtg aga Val Lys Gly Val Arg 25165	gaa gtc tat gac tat Glu Val Tyr Asp Tyr 25170	75642
tac tgc cgt aga acc Tyr Cys Arg Arg Thr 25175	atg aag aaa att aag Met Lys Lys Ile Lys 25180	cgc aga aca gac aca Arg Arg Thr Asp Thr 25185	75687
atg aga ctc ctg gaa Met Arg Leu Leu Glu 25190	agg cca cca gaa ttt Arg Pro Pro Glu Phe 25195	acc ctg cct ctc tat Thr Leu Pro Leu Tyr 25200	75732
aat aag aca gct tat Asn Lys Thr Ala Tyr 25205	gta ggt gaa aat gtc Val Gly Glu Asn Val 25210	cgg ttt gga gta act Arg Phe Gly Val Thr 25215	75777
ata act gtc cac cca Ile Thr Val His Pro 25220	gag cct cat gta aca Glu Pro His Val Thr 25225	tgg tat aaa tca ggt Trp Tyr Lys Ser Gly 25230	75822
cag aaa atc aaa cca Gln Lys Ile Lys Pro 25235	ggg gac aat gac aag Gly Asp Asn Asp Lys 25240	aag tac aca ttt gag Lys Tyr Thr Phe Glu 25245	75867
tca gac aag ggt ctt Ser Asp Lys Gly Leu 25250	tac caa tta aca atc Tyr Gln Leu Thr Ile 25255	aac agt gtc act aca Asn Ser Val Thr Thr 25260	75912
gat gat gac gct gaa Asp Asp Asp Ala Glu 25265	tat act gtt gtg gca Tyr Thr Val Val Ala 25270	agg aac aaa tat ggt Arg Asn Lys Tyr Gly 25275	75957
gaa gac agc tgt aaa Glu Asp Ser Cys Lys	gca aag ctg aca gta Ala Lys Leu Thr Val	acc cta cac cca cct Thr Leu His Pro Pro	76002

cca aca gat agt acc	tta aga ccc atg ttc	aaa agg tta ctg gca	76047
Pro Thr Asp Ser Thr	Leu Arg Pro Met Phe	Lys Arg Leu Leu Ala	
25295	25300	25305	
aat gca gaa tgc caa	gaa ggc caa agt gtc	tgc ttt gag atc aga	76092
Asn Ala Glu Cys Gln	Glu Gly Gln Ser Val	Cys Phe Glu Ile Arg	
25310	25315	25320	
gtg tct ggc atc ccc	cca cca aca tta aaa	tgg gag aaa gat ggt	76137
Val Ser Gly Ile Pro	Pro Pro Thr Leu Lys	Trp Glu Lys Asp Gly	
25325	25330	25335	
cag cca ctg tcc ctc	ggg cct aac att gaa	att atc cat gaa ggc	76182
Gln Pro Leu Ser Leu	Gly Pro Asn Ile Glu	Ile Ile His Glu Gly	
25340	25345	25350	
ttg gat tat tat gct	ctg cac atc agg gac	act ttg cct gaa gac	76227
Leu Asp Tyr Tyr Ala	Leu His Ile Arg Asp	Thr Leu Pro Glu Asp	
25355	25360	25365	
acg ggt tat tat aga	gtc aca gcc act aac	aca gct ggg tcc acc	76272
Thr Gly Tyr Tyr Arg	Val Thr Ala Thr Asn	Thr Ala Gly Ser Thr	
25370	25375	25380	
agc tgc cag gct cac	cta caa gtg gaa cgc	ctg agg tac aag aaa	76317
Ser Cys Gln Ala His	Leu Gln Val Glu Arg	Leu Arg Tyr Lys Lys	
25385	25390	25395	
cag gaa ttc aag agt	aag gag gag cat gag	cga cac gta caa aaa	76362
Gln Glu Phe Lys Ser	Lys Glu Glu His Glu	Arg His Val Gln Lys	
25400	25405	25410	
caa att gac aaa acc	ctc aga atg gct gaa	att ctt tct gga act	76407
Gln Ile Asp Lys Thr	Leu Arg Met Ala Glu	Ile Leu Ser Gly Thr	
25415	25420	25425	
gaa agt gta cca ctg	aca cag gta gct aaa	gag gct ctg aga gaa	76452
Glu Ser Val Pro Leu	Thr Gln Val Ala Lys	Glu Ala Leu Arg Glu	
25430	25435	25440	
gct gct gtc ctt tat	aaa ccg gct gta agc	acc aag act gta aaa	76497
Ala Ala Val Leu Tyr	Lys Pro Ala Val Ser	Thr Lys Thr Val Lys	
25445	25450	25455	
ggg gaa ttc aga ctt	gag ata gaa gaa aag	aag gag gag aga aaa	76542
Gly Glu Phe Arg Leu	Glu Ile Glu Glu Lys	Lys Glu Glu Arg Lys	
25460	25465	25470	
ctc cgg atg cct tat	gat gta cca gag cca	cgc aag tat aag cag	76587
Leu Arg Met Pro Tyr	Asp Val Pro Glu Pro	Arg Lys Tyr Lys Gln	
25475	25480	25485	
act acc ata gaa gaa	gac caa cgc atc aag	cag ttc gtg ccc atg	76632
Thr Thr Ile Glu Glu	Asp Gln Arg Ile Lys	Gln Phe Val Pro Met	
25490	25495	25500	

tct gac atg aag tgg	tat aaa aag ata cgt	gat cag tat gaa atg	76677
Ser Asp Met Lys Trp	Tyr Lys Lys Ile Arg	Asp Gln Tyr Glu Met	
25505	25510	25515	
cct ggg aaa ctt gac	aga gtt gta cag aaa	cga ccc aag cgc atc	76722
Pro Gly Lys Leu Asp	Arg Val Val Gln Lys	Arg Pro Lys Arg Ile	
25520	25525	25530	
cgc ctt tca aga tgg	gaa cag ttc tat gtg	atg cct ctt cca cgc	76767
Arg Leu Ser Arg Trp	Glu Gln Phe Tyr Val	Met Pro Leu Pro Arg	
25535	25540	25545	
att aca gat caa tac	aga cct aaa tgg cgt	att cct aaa ctg tcc	76812
Ile Thr Asp Gln Tyr	Arg Pro Lys Trp Arg	Ile Pro Lys Leu Ser	
25550	25555	25560	
caa gat gat ctt gag	ata gtg aga cca gcc	cgc cgg cgt aca cct	76857
Gln Asp Asp Leu Glu	Ile Val Arg Pro Ala	Arg Arg Arg Thr Pro	
25565	25570	25575	
tct cct gat tat gac	ttt tac tac cga cct	aga aga cgt tct ctt	76902
Ser Pro Asp Tyr Asp	Phe Tyr Tyr Arg Pro	Arg Arg Arg Ser Leu	
25580	25585	25590	
ggg gac atc tct gat	gaa gaa tta ctc ctc	ccc att gat gac tac	76947
Gly Asp Ile Ser Asp	Glu Glu Leu Leu Leu	Pro Ile Asp Asp Tyr	
25595	25600	25605	
tta gca atg aaa aga	aca gag gaa gag agg	ctg cgt ctt gaa gaa	76992
Leu Ala Met Lys Arg	Thr Glu Glu Glu Arg	Leu Arg Leu Glu Glu	
25610	25615	25620	
gag ctt gag tta ggt	ttt tca gct tca ccc	cca agt cga agc cct	77037
Glu Leu Glu Leu Gly	Phe Ser Ala Ser Pro	Pro Ser Arg Ser Pro	
25625	25630	25635	
cca cac ttt gag ctt	tct agc cta cgt tac	tct tca cca caa gct	77082
Pro His Phe Glu Leu	Ser Ser Leu Arg Tyr	Ser Ser Pro Gln Ala	
25640	25645	25650	
cat gtc aag gtg gag	gaa aca aga aaa aac	ttc agg tat tca acc	77127
His Val Lys Val Glu	Glu Thr Arg Lys Asn	Phe Arg Tyr Ser Thr	
25655	25660	25665	
tat cac atc cca acg	aag gct gaa gct agt	aca agt tat gca gaa	77172
Tyr His Ile Pro Thr	Lys Ala Glu Ala Ser	Thr Ser Tyr Ala Glu	
25670	25675	25680	
ctg agg gaa cgg cat	gcc cag gct gcg tac	aga cag cca aag caa	77217
Leu Arg Glu Arg His	Ala Gln Ala Ala Tyr	Arg Gln Pro Lys Gln	
25685	25690	25695	
cgg caa aga atc atg	gct gag agg gag gat	gaa gag ttg ctt cgc	77262
Arg Gln Arg Ile Met	Ala Glu Arg Glu Asp	Glu Glu Leu Leu Arg	
25700	25705	25710	
cca gtt acg acc acc	cag cat ctc tca gaa	tac aaa agc gaa ctt	77307
Pro Val Thr Thr Thr	Gln His Leu Ser Glu	Tyr Lys Ser Glu Leu	

25715					25720					25725					
gac ttc atg tca aag	gag gaa aag tct aga	aag aaa tca agg cga	77352												
Asp Phe Met Ser Lys	Glu Glu Lys Ser Arg	Lys Lys Ser Arg Arg													
25730	25735	25740													
caa aga gaa gtg aca	gaa ata aca gaa att	gag gaa gaa tac gaa	77397												
Gln Arg Glu Val Thr	Glu Ile Thr Glu Ile	Glu Glu Glu Tyr Glu													
25745	25750	25755													
atc tca aaa cat gct	caa aga gaa tca tcc	tca tct gcg tct aga	77442												
Ile Ser Lys His Ala	Gln Arg Glu Ser Ser	Ser Ser Ala Ser Arg													
25760	25765	25770													
cta ctg aga cga cgg	cgc tcc ctg tct cca	act tat att gag tta	77487												
Leu Leu Arg Arg Arg	Arg Ser Leu Ser Pro	Thr Tyr Ile Glu Leu													
25775	25780	25785													
atg agg cca gtg tct	gag ctg atc cgg tca	cgt cca caa ccg gct	77532												
Met Arg Pro Val Ser	Glu Leu Ile Arg Ser	Arg Pro Gln Pro Ala													
25790	25795	25800													
gag gaa tac gaa gat	gac aca gaa aga agg	tca cct act cca gag	77577												
Glu Glu Tyr Glu Asp	Asp Thr Glu Arg Arg	Ser Pro Thr Pro Glu													
25805	25810	25815													
aga act cgc cca cga	tcc ccc agc cct gtg	tct agt gag aga tca	77622												
Arg Thr Arg Pro Arg	Ser Pro Ser Pro Val	Ser Ser Glu Arg Ser													
25820	25825	25830													
ctc tcg aga ttt gag	agg tct gca aga ttt	gat atc ttt tcc agg	77667												
Leu Ser Arg Phe Glu	Arg Ser Ala Arg Phe	Asp Ile Phe Ser Arg													
25835	25840	25845													
tat gag tcc atg aaa	gct gct tta aaa act	cag aag aca tca gaa	77712												
Tyr Glu Ser Met Lys	Ala Ala Leu Lys Thr	Gln Lys Thr Ser Glu													
25850	25855	25860													
agg aag tat gaa gtt	ttg agt cag cag cct	ttc aca ctg gac cat	77757												
Arg Lys Tyr Glu Val	Leu Ser Gln Gln Pro	Phe Thr Leu Asp His													
25865	25870	25875													
gcc cct cga atc aca	ctg aga atg cgc tcg	cac agg gta cca tgt	77802												
Ala Pro Arg Ile Thr	Leu Arg Met Arg Ser	His Arg Val Pro Cys													
25880	25885	25890													
ggc caa aat aca cgt	ttt att tta aat gtt	cag tct aag cca act	77847												
Gly Gln Asn Thr Arg	Phe Ile Leu Asn Val	Gln Ser Lys Pro Thr													
25895	25900	25905													
gcc gag gtt aaa tgg	tac cac aat ggt gtg	gaa ctc caa gaa agc	77892												
Ala Glu Val Lys Trp	Tyr His Asn Gly Val	Glu Leu Gln Glu Ser													
25910	25915	25920													
agt aag att cat tac	acc aac acg agt gga	gtc ctc acc ctg gaa	77937												
Ser Lys Ile His Tyr	Thr Asn Thr Ser Gly	Val Leu Thr Leu Glu													
25925	25930	25935													

att ctg gac tgt cat Ile Leu Asp Cys His 25940	act gat gac agt gga Thr Asp Asp Ser Gly 25945	acc tac cgt gct gtg Thr Tyr Arg Ala Val 25950	77982
tgc acc aac tac aag Cys Thr Asn Tyr Lys 25955	ggc gaa gct tct gac Gly Glu Ala Ser Asp 25960	tat gca acg ttg gac Tyr Ala Thr Leu Asp 25965	78027
gtg aca gga ggg gat Val Thr Gly Gly Asp 25970	tat acc acc tat gct Tyr Thr Thr Tyr Ala 25975	tcc caa cgc aga gat Ser Gln Arg Arg Asp 25980	78072
gaa gag gtc ccc aga Glu Glu Val Pro Arg 25985	tct gtt ttc cct gag Ser Val Phe Pro Glu 25990	ctg aca aga aca gag Leu Thr Arg Thr Glu 25995	78117
gcg tat gct gtt cca Ala Tyr Ala Val Pro 26000	tca ttt aag aaa aca Ser Phe Lys Lys Thr 26005	tct gag atg gaa gct Ser Glu Met Glu Ala 26010	78162
tcg tct tct gtc agg Ser Ser Ser Val Arg 26015	gaa gtg aaa tca cag Glu Val Lys Ser Gln 26020	atg acg gag aca agg Met Thr Glu Thr Arg 26025	78207
gaa agt ctc tcc tca Glu Ser Leu Ser Ser 26030	tat gaa cac tct gca Tyr Glu His Ser Ala 26035	tct gca gaa atg aaa Ser Ala Glu Met Lys 26040	78252
agt gct gca tta gaa Ser Ala Ala Leu Glu 26045	gaa aag tca ctg gaa Glu Lys Ser Leu Glu 26050	gaa aaa tcc aca acc Glu Lys Ser Thr Thr 26055	78297
aga aag atc aag acg Arg Lys Ile Lys Thr 26060	act ttg gca gca aga Thr Leu Ala Ala Arg 26065	att cta aca aag cca Ile Leu Thr Lys Pro 26070	78342
cgg tcc atg acc gtc Arg Ser Met Thr Val 26075	tac gag ggc gag tct Tyr Glu Gly Glu Ser 26080	gca agg ttt tct tgt Ala Arg Phe Ser Cys 26085	78387
gac acc gat ggt gag Asp Thr Asp Gly Glu 26090	ccg gta cca act gtg Pro Val Pro Thr Val 26095	acc tgg ctg cgt aaa Thr Trp Leu Arg Lys 26100	78432
gga caa gtg cta agt Gly Gln Val Leu Ser 26105	act tct gcc cgc cac Thr Ser Ala Arg His 26110	caa gtg acc acc aca Gln Val Thr Thr Thr 26115	78477
aag tac aaa tca acc Lys Tyr Lys Ser Thr 26120	ttt gag atc tct tca Phe Glu Ile Ser Ser 26125	gtc cag gct tcc gat Val Gln Ala Ser Asp 26130	78522
gag ggc aat tac agc Glu Gly Asn Tyr Ser 26135	gtg gtg gta gaa aac Val Val Val Glu Asn 26140	agt gaa ggg aaa caa Ser Glu Gly Lys Gln 26145	78567
gaa gca gag ttc act Glu Ala Glu Phe Thr	ctg act att caa aag Leu Thr Ile Gln Lys	gcc agg gta act gaa Ala Arg Val Thr Glu	78612

	26150		26155		26160	
aag gct gtg aca tca	cca cca aga gtc	aaa tcc cca gag cct cgg	78657			
Lys Ala Val Thr Ser	Pro Pro Arg Val Lys	Ser Pro Glu Pro Arg				
26165	26170	26175				
gtg aaa tcc cca gaa	gca gtt aag tct cca	aaa cga gtg aaa tct	78702			
Val Lys Ser Pro Glu	Ala Val Lys Ser Pro	Lys Arg Val Lys Ser				
26180	26185	26190				
cca gaa cct tct cac	ccg aaa gcc gta tca	ccc aca gag aca aaa	78747			
Pro Glu Pro Ser His	Pro Lys Ala Val Ser	Pro Thr Glu Thr Lys				
26195	26200	26205				
cca aca cca aga gag	aaa gtt cag cac ctc	cca gtc tct gcc cca	78792			
Pro Thr Pro Arg Glu	Lys Val Gln His Leu	Pro Val Ser Ala Pro				
26210	26215	26220				
cca aag att act cag	ttc ctg aaa gca gaa	gct tct aaa gag att	78837			
Pro Lys Ile Thr Gln	Phe Leu Lys Ala Glu	Ala Ser Lys Glu Ile				
26225	26230	26235				
gca aaa ctg acc tgt	gtg gtt gaa agc agt	gta tta agg gca aaa	78882			
Ala Lys Leu Thr Cys	Val Val Glu Ser Ser	Val Leu Arg Ala Lys				
26240	26245	26250				
gag gtc acc tgg tat	aaa gat ggc aag aaa	ctg aag gaa aat ggg	78927			
Glu Val Thr Trp Tyr	Lys Asp Gly Lys Lys	Leu Lys Glu Asn Gly				
26255	26260	26265				
cat ttc cag ttt cat	tat tca gca gat ggt	acc tat gag ctc aaa	78972			
His Phe Gln Phe His	Tyr Ser Ala Asp Gly	Thr Tyr Glu Leu Lys				
26270	26275	26280				
atc aat aac ctc act	gaa tct gat caa gga	gaa tat gtt tgt gag	79017			
Ile Asn Asn Leu Thr	Glu Ser Asp Gln Gly	Glu Tyr Val Cys Glu				
26285	26290	26295				
att tct ggt gaa ggt	gga acg tct aaa acc	aac tta caa ttt atg	79062			
Ile Ser Gly Glu Gly	Gly Thr Ser Lys Thr	Asn Leu Gln Phe Met				
26300	26305	26310				
ggg caa gcc ttt aag	agt atc cat gag aag	gta tca aaa ata tca	79107			
Gly Gln Ala Phe Lys	Ser Ile His Glu Lys	Val Ser Lys Ile Ser				
26315	26320	26325				
gaa act aag aaa tca	gat cag aaa acc act	gag tca aca gta acc	79152			
Glu Thr Lys Lys Ser	Asp Gln Lys Thr Thr	Glu Ser Thr Val Thr				
26330	26335	26340				
aga aaa act gaa cca	aaa gct cct gaa cca	att tcc tca aaa cca	79197			
Arg Lys Thr Glu Pro	Lys Ala Pro Glu Pro	Ile Ser Ser Lys Pro				
26345	26350	26355				
gta att gtt act ggg	ttg cag gat aca act	gtt tct tca gac agt	79242			
Val Ile Val Thr Gly	Leu Gln Asp Thr Thr	Val Ser Ser Asp Ser				
26360	26365	26370				

gtt gct aaa ttt gca Val Ala Lys Phe 26375	gtt aag gct act gga Val Lys Ala Thr 26380	gaa ccc cgg cca act Glu Pro Arg Pro Thr 26385	79287
gcc atc tgg aca aaa Ala Ile Trp Thr Lys 26390	gat gga aag gcc att Asp Gly Lys Ala Ile 26395	aca caa gga ggt aaa Thr Gln Gly Gly Lys 26400	79332
tat aaa ctc tct gaa Tyr Lys Leu Ser Glu 26405	gac aag gga ggg ttc Asp Lys Gly Gly Phe 26410	ttc tta gaa att cat Phe Leu Glu Ile His 26415	79377
aag act gat act tct Lys Thr Asp Thr Ser 26420	gac agt gga ctt tat Asp Ser Gly Leu Tyr 26425	act tgt aca gta aaa Thr Cys Thr Val Lys 26430	79422
aat tca gct gga tct Asn Ser Ala Gly Ser 26435	gtg tcc tct agc tgc Val Ser Ser Ser Cys 26440	aaa tta aca ata aaa Lys Leu Thr Ile Lys 26445	79467
gct ata aaa gat act Ala Ile Lys Asp Thr 26450	gag gca cag aaa gtc Glu Ala Gln Lys Val 26455	tct aca caa aag act Ser Thr Gln Lys Thr 26460	79512
tct gaa att aca cct Ser Glu Ile Thr Pro 26465	cag aag aaa gct gtt Gln Lys Lys Ala Val 26470	gtc caa gag gaa att Val Gln Glu Glu Ile 26475	79557
tcc caa aaa gcc cta Ser Gln Lys Ala Leu 26480	agg tct gaa gaa att Arg Ser Glu Glu Ile 26485	aag atg tca gag gca Lys Met Ser Glu Ala 26490	79602
aaa tct caa gaa aag Lys Ser Gln Glu Lys 26495	tta gcc ctc aaa gag Leu Ala Leu Lys Glu 26500	gaa gct tca aag gtt Glu Ala Ser Lys Val 26505	79647
ctg att tct gaa gaa Leu Ile Ser Glu Glu 26510	gtc aag aaa tca gca Val Lys Lys Ser Ala 26515	gca acc tcc ctg gaa Ala Thr Ser Leu Glu 26520	79692
aaa tcc att gtc cat Lys Ser Ile Val His 26525	gag gaa atc act aaa Glu Glu Ile Thr Lys 26530	aca tca cag gca tca Thr Ser Gln Ala Ser 26535	79737
gaa gaa gtc aga act Glu Glu Val Arg Thr 26540	cat gct gag att aaa His Ala Glu Ile Lys 26545	gca ttt tct act cag Ala Phe Ser Thr Gln 26550	79782
atg agc ata aac gaa Met Ser Ile Asn Glu 26555	ggg caa aga ctg gtt Gly Gln Arg Leu Val 26560	tta aaa gcc aac att Leu Lys Ala Asn Ile 26565	79827
gct ggt gcc act gat Ala Gly Ala Thr Asp 26570	gtg aaa tgg gta ctg Val Lys Trp Val Leu 26575	aat ggc gta gag ctt Asn Gly Val Glu Leu 26580	79872
acc aac tct gag gag Thr Asn Ser Glu Glu	tac cga tat ggt gtc Tyr Arg Tyr Gly Val	tca ggc agc gat cag Ser Gly Ser Asp Gln	79917

26585					26590					26595					
acc	cta	acc	atc	aag	caa	gcc	agt	cac	aga	gat	gaa	gga	atc	ctc	79962
Thr	Leu	Thr	Ile	Lys	Gln	Ala	Ser	His	Arg	Asp	Glu	Gly	Ile	Leu	
				26600					26605					26610	
acc	tgc	ata	agc	aaa	acc	aag	gaa	gga	atc	gtc	aag	tgt	cag	tat	80007
Thr	Cys	Ile	Ser	Lys	Thr	Lys	Glu	Gly	Ile	Val	Lys	Cys	Gln	Tyr	
				26615					26620					26625	
gat	ttg	aca	ctg	agc	aaa	gaa	ctc	tca	gat	gct	cca	gcc	ttc	atc	80052
Asp	Leu	Thr	Leu	Ser	Lys	Glu	Leu	Ser	Asp	Ala	Pro	Ala	Phe	Ile	
				26630					26635					26640	
tca	cag	cct	aga	tct	caa	aat	att	aat	gaa	gga	caa	aat	gtt	ctc	80097
Ser	Gln	Pro	Arg	Ser	Gln	Asn	Ile	Asn	Glu	Gly	Gln	Asn	Val	Leu	
				26645					26650					26655	
ttt	act	tgt	gaa	atc	agt	ggc	gag	cca	tcc	cct	gaa	atc	gaa	tgg	80142
Phe	Thr	Cys	Glu	Ile	Ser	Gly	Glu	Pro	Ser	Pro	Glu	Ile	Glu	Trp	
				26660					26665					26670	
ttt	aaa	aac	aac	ctg	cca	att	tct	att	tct	tca	aat	gtc	agc	ata	80187
Phe	Lys	Asn	Asn	Leu	Pro	Ile	Ser	Ile	Ser	Ser	Asn	Val	Ser	Ile	
				26675					26680					26685	
agc	cgc	tcc	aga	aat	gta	tac	tcc	ctt	gaa	atc	cga	aat	gca	tca	80232
Ser	Arg	Ser	Arg	Asn	Val	Tyr	Ser	Leu	Glu	Ile	Arg	Asn	Ala	Ser	
				26690					26695					26700	
gtc	agc	gac	agt	gga	aag	tac	aca	att	aag	gcc	aaa	aat	ttc	cgt	80277
Val	Ser	Asp	Ser	Gly	Lys	Tyr	Thr	Ile	Lys	Ala	Lys	Asn	Phe	Arg	
				26705					26710					26715	
ggc	cag	tgt	tca	gct	aca	gct	tcc	tta	atg	gtc	ctt	cct	cta	gtt	80322
Gly	Gln	Cys	Ser	Ala	Thr	Ala	Ser	Leu	Met	Val	Leu	Pro	Leu	Val	
				26720					26725					26730	
gaa	gaa	cct	tcc	aga	gag	gta	gta	ttg	aga	aca	agt	ggt	gac	aca	80367
Glu	Glu	Pro	Ser	Arg	Glu	Val	Val	Leu	Arg	Thr	Ser	Gly	Asp	Thr	
				26735					26740					26745	
agc	ttg	caa	gga	agc	ttc	tcg	tct	cag	tca	gtc	caa	atg	tct	gcc	80412
Ser	Leu	Gln	Gly	Ser	Phe	Ser	Ser	Gln	Ser	Val	Gln	Met	Ser	Ala	
				26750					26755					26760	
tcc	aag	cag	gag	gcc	tcc	ttc	agc	agt	ttc	agc	agc	agc	agt	gct	80457
Ser	Lys	Gln	Glu	Ala	Ser	Phe	Ser	Ser	Phe	Ser	Ser	Ser	Ser	Ala	
				26765					26770					26775	
agc	agc	atg	act	gag	atg	aaa	ttt	gca	agc	atg	tct	gcc	caa	agc	80502
Ser	Ser	Met	Thr	Glu	Met	Lys	Phe	Ala	Ser	Met	Ser	Ala	Gln	Ser	
				26780					26785					26790	
atg	tcc	tcc	atg	caa	gag	tcc	ttt	gta	gaa	atg	agt	tcc	agc	agc	80547
Met	Ser	Ser	Met	Gln	Glu	Ser	Phe	Val	Glu	Met	Ser	Ser	Ser	Ser	
				26795					26800					26805	

ttt atg gga ata tct	aat atg aca caa ctg	gaa agc tca act agt	80592
Phe Met Gly Ile Ser	Asn Met Thr Gln Leu	Glu Ser Ser Thr Ser	
26810	26815	26820	
aaa atg ctt aaa gca	ggc ata aga gga att	ccg cct aaa att gaa	80637
Lys Met Leu Lys Ala	Gly Ile Arg Gly Ile	Pro Pro Lys Ile Glu	
26825	26830	26835	
gct ctt cca tct gat	atc agc att gat gaa	ggc aaa gtt cta aca	80682
Ala Leu Pro Ser Asp	Ile Ser Ile Asp Glu	Gly Lys Val Leu Thr	
26840	26845	26850	
gta gcc tgt gct ttc	acg ggt gag cct acc	cca gaa gta aca tgg	80727
Val Ala Cys Ala Phe	Thr Gly Glu Pro Thr	Pro Glu Val Thr Trp	
26855	26860	26865	
tcc tgt ggt gga aga	aaa atc cac agt caa	gaa cag ggg agg ttc	80772
Ser Cys Gly Gly Arg	Lys Ile His Ser Gln	Glu Gln Gly Arg Phe	
26870	26875	26880	
cac att gaa aac aca	gat gac ctg aca acc	ctg atc atc atg gac	80817
His Ile Glu Asn Thr	Asp Asp Leu Thr Thr	Leu Ile Ile Met Asp	
26885	26890	26895	
gta cag aaa caa gat	ggg gga ctt tat acc	ctg agt tta ggg aat	80862
Val Gln Lys Gln Asp	Gly Gly Leu Tyr Thr	Leu Ser Leu Gly Asn	
26900	26905	26910	
gaa ttt gga tct gac	tct gcc act gtg aat	ata cat att cga tcc	80907
Glu Phe Gly Ser Asp	Ser Ala Thr Val Asn	Ile His Ile Arg Ser	
26915	26920	26925	
att taagagggcc tgtgccctta tactctacac tcattcttaa ctttttcgcaa			80960
Ile			
acgttttcaca cggactaatc tttctgaact gtaaataat	aaagaaaaaa agtagttttg		81020
tatcaaccta aatgagtcaa agttcaaaaa tattcatttc	aatccttttca taattgttga		81080
cctaagaata taatacat	ttt gctagtgaca tgtacatact gtatatagcc ggattaacgg		81140
ttataaagtt ttgtaccatt	tat tttttatga catttttaca tgtaagtttt gaaactaact		81200
gttggttagga gaaagtttct	tat gggaacga ataccctgct caacattttaa tcaatctttg		81260
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acactttaac gtcttacatt	ttctctgatg atgtcacaca aaattatcat gacaaatatt		81500
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aggagtgcct gaatagcttg	gaaaagtaac atctcctggc catcccttca ttttaaccaag		81620

ctattcaagt attcctatgc cagagcagtg ccaactcttg gaggtcccag agtgcagcca 81680
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aatattacta attgcccaaa atgtcaattt gatgtagttc ttttcatgca agtataaatt 81860
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atctgcacct caaaaaaaaaa 81940

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<211> 26926

<212> PRT

<213> Homo sapiens

<400> 2

Met Thr Thr Gln Ala Pro Thr Phe Thr Gln Pro Leu Gln Ser Val Val
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Val Leu Glu Gly Ser Thr Ala Thr Phe Glu Ala His Ile Ser Gly Phe
20 25 30

Pro Val Pro Glu Val Ser Trp Phe Arg Asp Gly Gln Val Ile Ser Thr
35 40 45

Ser Thr Leu Pro Gly Val Gln Ile Ser Phe Ser Asp Gly Arg Ala Lys
50 55 60

Leu Thr Ile Pro Ala Val Thr Lys Ala Asn Ser Gly Arg Tyr Ser Leu
65 70 75 80

Lys Ala Thr Asn Gly Ser Gly Gln Ala Thr Ser Thr Ala Glu Leu Leu
85 90 95

Val Lys Ala Glu Thr Ala Pro Pro Asn Phe Val Gln Arg Leu Gln Ser
100 105 110

Met Thr Val Arg Gln Gly Ser Gln Val Arg Leu Gln Val Arg Val Thr
115 120 125

Gly Ile Pro Thr Pro Val Val Lys Phe Tyr Arg Asp Gly Ala Glu Ile

130	135	140															
Gln Ser Ser Leu Asp Phe Gln Ile Ser Gln Glu Gly Asp Leu Tyr Ser																	
145				150					155							160	
Leu Leu Ile Ala Glu Ala Tyr Pro Glu Asp Ser Gly Thr Tyr Ser Val				165				170								175	
Asn Ala Thr Asn Ser Val Gly Arg Ala Thr Ser Thr Ala Glu Leu Leu				180			185						190				
Val Gln Gly Glu Glu Glu Val Pro Ala Lys Lys Thr Lys Thr Ile Val							200					205					
Ser Thr Ala Gln Ile Ser Glu Ser Arg Gln Thr Arg Ile Glu Lys Lys						215				220							
Ile Glu Ala His Phe Asp Ala Arg Ser Ile Ala Thr Val Glu Met Val					230				235								240
Ile Asp Gly Ala Ala Gly Gln Gln Leu Pro His Lys Thr Pro Pro Arg				245				250							255		
Ile Pro Pro Lys Pro Lys Ser Arg Ser Pro Thr Pro Pro Ser Ile Ala				260				265						270			
Ala Lys Ala Gln Leu Ala Arg Gln Gln Ser Pro Ser Pro Ile Arg His				275			280					285					
Ser Pro Ser Pro Val Arg His Val Arg Ala Pro Thr Pro Ser Pro Val						295				300							
Arg Ser Val Ser Pro Ala Ala Arg Ile Ser Thr Ser Pro Ile Arg Ser					310				315							320	
Val Arg Ser Pro Leu Leu Met Arg Lys Thr Gln Ala Ser Thr Val Ala				325					330							335	
Thr Gly Pro Glu Val Pro Pro Pro Trp Lys Gln Glu Gly Tyr Val Ala				340				345						350			
Ser Ser Ser Glu Ala Glu Met Arg Glu Thr Thr Leu Thr Thr Ser Thr				355			360					365					

Gln Ile Arg Thr Glu Glu Arg Trp Glu Gly Arg Tyr Gly Val Gln Glu
 370 375 380

Gln Val Thr Ile Ser Gly Ala Ala Gly Ala Ala Ala Ser Val Ser Ala
 385 390 395 400

Ser Ala Ser Tyr Ala Ala Glu Ala Val Ala Thr Gly Ala Lys Glu Val
 405 410 415

Lys Gln Asp Ala Asp Lys Ser Ala Ala Val Ala Thr Val Val Ala Ala
 420 425 430

Val Asp Met Ala Arg Val Arg Glu Pro Val Ile Ser Ala Val Glu Gln
 435 440 445

Thr Ala Gln Arg Thr Thr Thr Thr Ala Val His Ile Gln Pro Ala Gln
 450 455 460

Glu Gln Val Arg Lys Glu Ala Glu Lys Thr Ala Val Thr Lys Val Val
 465 470 475 480

Val Ala Ala Asp Lys Ala Lys Glu Gln Glu Leu Lys Ser Arg Thr Lys
 485 490 495

Glu Ile Ile Thr Thr Lys Gln Glu Gln Met His Val Thr His Glu Gln
 500 505 510

Ile Arg Lys Glu Thr Glu Lys Thr Phe Val Pro Lys Val Val Ile Ser
 515 520 525

Ala Ala Lys Ala Lys Glu Gln Glu Thr Arg Ile Ser Glu Glu Ile Thr
 530 535 540

Lys Lys Gln Lys Gln Val Thr Gln Glu Ala Ile Met Lys Glu Thr Arg
 545 550 555 560

Lys Thr Val Val Pro Lys Val Ile Val Ala Thr Pro Lys Val Lys Glu
 565 570 575

Gln Asp Leu Val Ser Arg Gly Arg Glu Gly Ile Thr Thr Lys Arg Glu
 580 585 590

Gln Val Gln Ile Thr Gln Glu Lys Met Arg Lys Glu Ala Glu Lys Thr
 595 600 605

Ala Leu Ser Thr Ile Ala Val Ala Thr Ala Lys Ala Lys Glu Gln Glu
 610 615 620

Thr Ile Leu Arg Thr Arg Glu Thr Met Ala Thr Arg Gln Glu Gln Ile
 625 630 635 640

Gln Val Thr His Gly Lys Val Asp Val Gly Lys Lys Ala Glu Ala Val
 645 650 655

Ala Thr Val Val Ala Ala Val Asp Gln Ala Arg Val Arg Glu Pro Arg
 660 665 670

Glu Pro Gly His Leu Glu Glu Ser Tyr Ala Gln Gln Thr Thr Leu Glu
 675 680 685

Tyr Gly Tyr Lys Glu Arg Ile Ser Ala Ala Lys Val Ala Glu Pro Pro
 690 695 700

Gln Arg Pro Ala Ser Glu Pro His Val Val Pro Lys Ala Val Lys Pro
 705 710 715 720

Arg Val Ile Gln Ala Pro Ser Glu Thr His Ile Lys Thr Thr Asp Gln
 725 730 735

Lys Gly Met His Ile Ser Ser Gln Ile Lys Lys Thr Thr Asp Leu Thr
 740 745 750

Thr Glu Arg Leu Val His Val Asp Lys Arg Pro Arg Thr Ala Ser Pro
 755 760 765

His Phe Thr Val Ser Lys Ile Ser Val Pro Lys Thr Glu His Gly Tyr
 770 775 780

Glu Ala Ser Ile Ala Gly Ser Ala Ile Ala Thr Leu Gln Lys Glu Leu
 785 790 795 800

Ser Ala Thr Ser Ser Ala Gln Lys Ile Thr Lys Ser Val Lys Ala Pro
 805 810 815

Thr Val Lys Pro Ser Glu Thr Arg Val Arg Ala Glu Pro Thr Pro Leu
 820 825 830

Pro Gln Phe Pro Phe Ala Asp Thr Pro Asp Thr Tyr Lys Ser Glu Ala

835		840		845
Gly Val Glu Val Lys Lys Glu Val Gly Val Ser Ile Thr Gly Thr Thr				
850		855		860
Val Arg Glu Glu Arg Phe Glu Val Leu His Gly Arg Glu Ala Lys Val				
865		870		875
				880
Thr Glu Thr Ala Arg Val Pro Ala Pro Val Glu Ile Pro Val Thr Pro				
		885		890
				895
Pro Thr Leu Val Ser Gly Leu Lys Asn Val Thr Val Ile Glu Gly Glu				
		900		905
				910
Ser Val Thr Leu Glu Cys His Ile Ser Gly Tyr Pro Ser Pro Thr Val				
		915		920
				925
Thr Trp Tyr Arg Glu Asp Tyr Gln Ile Glu Ser Ser Ile Asp Phe Gln				
		930		935
				940
Ile Thr Phe Gln Ser Gly Ile Ala Arg Leu Met Ile Arg Glu Ala Phe				
945		950		955
				960
Ala Glu Asp Ser Gly Arg Phe Thr Cys Ser Ala Val Asn Glu Ala Gly				
		965		970
				975
Thr Val Ser Thr Ser Cys Tyr Leu Ala Val Gln Val Ser Glu Glu Phe				
		980		985
				990
Glu Lys Glu Thr Thr Ala Val Thr Glu Lys Phe Thr Thr Glu Glu Lys				
		995		1000
				1005
Arg Phe Val Glu Ser Arg Asp Val Val Met Thr Asp Thr Ser Leu				
		1010		1015
				1020
Thr Glu Glu Gln Ala Gly Pro Gly Glu Pro Ala Ala Pro Tyr Phe				
		1025		1030
				1035
Ile Thr Lys Pro Val Val Gln Lys Leu Val Glu Gly Gly Ser Val				
		1040		1045
				1050
Val Phe Gly Cys Gln Val Gly Gly Asn Pro Lys Pro His Val Tyr				
		1055		1060
				1065

Trp	Lys	Lys	Ser	Gly	Val	Pro	Leu	Thr	Thr	Gly	Tyr	Arg	Tyr	Lys
1070						1075					1080			
Val	Ser	Tyr	Asn	Lys	Gln	Thr	Gly	Glu	Cys	Lys	Leu	Val	Ile	Ser
1085						1090					1095			
Met	Thr	Phe	Ala	Asp	Asp	Ala	Gly	Glu	Tyr	Thr	Ile	Val	Val	Arg
1100						1105					1110			
Asn	Lys	His	Gly	Glu	Thr	Ser	Ala	Ser	Ala	Ser	Leu	Leu	Glu	Glu
1115						1120					1125			
Ala	Asp	Tyr	Glu	Leu	Leu	Met	Lys	Ser	Gln	Gln	Glu	Met	Leu	Tyr
1130						1135					1140			
Gln	Thr	Gln	Val	Thr	Ala	Phe	Val	Gln	Glu	Pro	Glu	Val	Gly	Glu
1145						1150					1155			
Thr	Ala	Pro	Gly	Phe	Val	Tyr	Ser	Glu	Tyr	Glu	Lys	Glu	Tyr	Glu
1160						1165					1170			
Lys	Glu	Gln	Ala	Leu	Ile	Arg	Lys	Lys	Met	Ala	Lys	Asp	Thr	Val
1175						1180					1185			
Val	Val	Arg	Thr	Tyr	Val	Glu	Asp	Gln	Glu	Phe	His	Ile	Ser	Ser
1190						1195					1200			
Phe	Glu	Glu	Arg	Leu	Ile	Lys	Glu	Ile	Glu	Tyr	Arg	Ile	Ile	Lys
1205						1210					1215			
Thr	Thr	Leu	Glu	Glu	Leu	Leu	Glu	Glu	Asp	Gly	Glu	Glu	Lys	Met
1220						1225					1230			
Ala	Val	Asp	Ile	Ser	Glu	Ser	Glu	Ala	Val	Glu	Ser	Gly	Phe	Asp
1235						1240					1245			
Leu	Arg	Ile	Lys	Asn	Tyr	Arg	Ile	Leu	Glu	Gly	Met	Gly	Val	Thr
1250						1255					1260			
Phe	His	Cys	Lys	Met	Ser	Gly	Tyr	Pro	Leu	Pro	Lys	Ile	Ala	Trp
1265						1270					1275			
Tyr	Lys	Asp	Gly	Lys	Arg	Ile	Lys	His	Gly	Glu	Arg	Tyr	Gln	Met
1280						1285					1290			

Asp	Phe	Leu	Gln	Asp	Gly	Arg	Ala	Ser	Leu	Arg	Ile	Pro	Val	Val
1295						1300					1305			
Leu	Pro	Glu	Asp	Glu	Gly	Ile	Tyr	Thr	Ala	Phe	Ala	Ser	Asn	Ile
1310						1315					1320			
Lys	Gly	Asn	Ala	Ile	Cys	Ser	Gly	Lys	Leu	Tyr	Val	Glu	Pro	Ala
1325						1330					1335			
Ala	Pro	Leu	Gly	Ala	Pro	Thr	Tyr	Ile	Pro	Thr	Leu	Glu	Pro	Val
1340						1345					1350			
Ser	Arg	Ile	Arg	Ser	Leu	Ser	Pro	Arg	Ser	Val	Ser	Arg	Ser	Pro
1355						1360					1365			
Ile	Arg	Met	Ser	Pro	Ala	Arg	Met	Ser	Pro	Ala	Arg	Met	Ser	Pro
1370						1375					1380			
Ala	Arg	Met	Ser	Pro	Ala	Arg	Met	Ser	Pro	Gly	Arg	Arg	Leu	Glu
1385						1390					1395			
Glu	Thr	Asp	Glu	Ser	Gln	Leu	Glu	Arg	Leu	Tyr	Lys	Pro	Val	Phe
1400						1405					1410			
Val	Leu	Lys	Pro	Val	Ser	Phe	Lys	Cys	Leu	Glu	Gly	Gln	Thr	Ala
1415						1420					1425			
Arg	Phe	Asp	Leu	Lys	Val	Val	Gly	Arg	Pro	Met	Pro	Glu	Thr	Phe
1430						1435					1440			
Trp	Phe	His	Asp	Gly	Gln	Gln	Ile	Val	Asn	Asp	Tyr	Thr	His	Lys
1445						1450					1455			
Val	Val	Ile	Lys	Glu	Asp	Gly	Thr	Gln	Ser	Leu	Ile	Ile	Val	Pro
1460						1465					1470			
Ala	Thr	Pro	Ser	Asp	Ser	Gly	Glu	Trp	Thr	Val	Val	Ala	Gln	Asn
1475						1480					1485			
Arg	Ala	Gly	Arg	Ser	Ser	Ile	Ser	Val	Ile	Leu	Thr	Val	Glu	Ala
1490						1495					1500			
Val	Glu	His	Gln	Val	Lys	Pro	Met	Phe	Val	Glu	Lys	Leu	Lys	Asn

1505		1510		1515
Val Asn Ile Lys Glu Gly Ser Arg Leu Glu Met Lys Val Arg Ala	1520	1525		1530
Thr Gly Asn Pro Asn Pro Asp Ile Val Trp Leu Lys Asn Ser Asp	1535	1540		1545
Ile Ile Val Pro His Lys Tyr Pro Lys Ile Arg Ile Glu Gly Thr	1550	1555		1560
Lys Gly Glu Ala Ala Leu Lys Ile Asp Ser Thr Val Ser Gln Asp	1565	1570		1575
Ser Ala Trp Tyr Thr Ala Thr Ala Ile Asn Lys Ala Gly Arg Asp	1580	1585		1590
Thr Thr Arg Cys Lys Val Asn Val Glu Val Glu Phe Ala Glu Pro	1595	1600		1605
Glu Pro Glu Arg Lys Leu Ile Ile Pro Arg Gly Thr Tyr Arg Ala	1610	1615		1620
Lys Glu Ile Ala Ala Pro Glu Leu Glu Pro Leu His Leu Arg Tyr	1625	1630		1635
Gly Gln Glu Gln Trp Glu Glu Gly Asp Leu Tyr Asp Lys Glu Lys	1640	1645		1650
Gln Gln Lys Pro Phe Phe Lys Lys Lys Leu Thr Ser Leu Arg Leu	1655	1660		1665
Lys Arg Phe Gly Pro Ala His Phe Glu Cys Arg Leu Thr Pro Ile	1670	1675		1680
Ser Asp Pro Thr Met Val Val Glu Trp Leu His Asp Gly Lys Pro	1685	1690		1695
Leu Glu Ala Ala Asn Arg Leu Arg Met Ile Asn Glu Phe Gly Tyr	1700	1705		1710
Cys Ser Leu Asp Tyr Gly Val Ala Tyr Ser Arg Asp Ser Gly Ile	1715	1720		1725

Ile Thr	Cys Arg Ala Thr	Asn	Lys Tyr Gly Thr	Asp	His Thr Ser
1730		1735		1740	
Ala Thr	Leu Ile Val Lys	Asp	Glu Lys Ser Leu	Val	Glu Glu Ser
1745		1750		1755	
Gln Leu	Pro Glu Gly Arg	Lys	Gly Leu Gln Arg	Ile	Glu Glu Leu
1760		1765		1770	
Glu Arg	Met Ala His Glu	Gly	Ala Leu Thr Gly	Val	Thr Thr Asp
1775		1780		1785	
Gln Lys	Glu Lys Gln Lys	Pro	Asp Ile Val Leu	Tyr	Pro Glu Pro
1790		1795		1800	
Val Arg	Val Leu Glu Gly	Glu	Thr Ala Arg Phe	Arg	Cys Arg Val
1805		1810		1815	
Thr Gly	Tyr Pro Gln Pro	Lys	Val Asn Trp Tyr	Leu	Asn Gly Gln
1820		1825		1830	
Leu Ile	Arg Lys Ser Lys	Arg	Phe Arg Val Arg	Tyr	Asp Gly Ile
1835		1840		1845	
His Tyr	Leu Asp Ile Val	Asp	Cys Lys Ser Tyr	Asp	Thr Gly Glu
1850		1855		1860	
Val Lys	Val Thr Ala Glu	Asn	Pro Glu Gly Val	Ile	Glu His Lys
1865		1870		1875	
Val Lys	Leu Glu Ile Gln	Gln	Arg Glu Asp Phe	Arg	Ser Val Leu
1880		1885		1890	
Arg Arg	Ala Pro Glu Pro	Arg	Pro Glu Phe His	Val	His Glu Pro
1895		1900		1905	
Gly Lys	Leu Gln Phe Glu	Val	Gln Lys Val Asp	Arg	Pro Val Asp
1910		1915		1920	
Thr Thr	Glu Thr Lys Glu	Val	Val Lys Leu Lys	Arg	Ala Glu Arg
1925		1930		1935	
Ile Thr	His Glu Lys Val	Pro	Glu Glu Ser Glu	Glu	Leu Arg Ser
1940		1945		1950	

Lys	Phe	Lys	Arg	Arg	Thr	Glu	Glu	Gly	Tyr	Tyr	Glu	Ala	Ile	Thr
1955						1960					1965			
Ala	Val	Glu	Leu	Lys	Ser	Arg	Lys	Lys	Asp	Glu	Ser	Tyr	Glu	Glu
1970						1975					1980			
Leu	Leu	Arg	Lys	Thr	Lys	Asp	Glu	Leu	Leu	His	Trp	Thr	Lys	Glu
1985						1990					1995			
Leu	Thr	Glu	Glu	Glu	Lys	Lys	Ala	Leu	Ala	Glu	Glu	Gly	Lys	Ile
2000						2005					2010			
Thr	Ile	Pro	Thr	Phe	Lys	Pro	Asp	Lys	Ile	Glu	Leu	Ser	Pro	Ser
2015						2020					2025			
Met	Glu	Ala	Pro	Lys	Ile	Phe	Glu	Arg	Ile	Gln	Ser	Gln	Thr	Val
2030						2035					2040			
Gly	Gln	Gly	Ser	Asp	Ala	His	Phe	Arg	Val	Arg	Val	Val	Gly	Lys
2045						2050					2055			
Pro	Asp	Pro	Glu	Cys	Glu	Trp	Tyr	Lys	Asn	Gly	Val	Lys	Ile	Glu
2060						2065					2070			
Arg	Ser	Asp	Arg	Ile	Tyr	Trp	Tyr	Trp	Pro	Glu	Asp	Asn	Val	Cys
2075						2080					2085			
Glu	Leu	Val	Ile	Arg	Asp	Val	Thr	Ala	Glu	Asp	Ser	Ala	Ser	Ile
2090						2095					2100			
Met	Val	Lys	Ala	Ile	Asn	Ile	Ala	Gly	Glu	Thr	Ser	Ser	His	Ala
2105						2110					2115			
Phe	Leu	Leu	Val	Gln	Ala	Lys	Gln	Leu	Ile	Thr	Phe	Thr	Gln	Glu
2120						2125					2130			
Leu	Gln	Asp	Val	Val	Ala	Lys	Glu	Lys	Asp	Thr	Met	Ala	Thr	Phe
2135						2140					2145			
Glu	Cys	Glu	Thr	Ser	Glu	Pro	Phe	Val	Lys	Val	Lys	Trp	Tyr	Lys
2150						2155					2160			
Asp	Gly	Met	Glu	Val	His	Glu	Gly	Asp	Lys	Tyr	Arg	Met	His	Ser

2165		2170		2175
Asp Arg Lys Val His Phe Leu Ser Ile Leu Thr Ile Asp Thr Ser				
2180		2185		2190
Asp Ala Glu Asp Tyr Ser Cys Val Leu Val Glu Asp Glu Asn Val				
2195		2200		2205
Lys Thr Thr Ala Lys Leu Ile Val Glu Gly Ala Val Val Glu Phe				
2210		2215		2220
Val Lys Glu Leu Gln Asp Ile Glu Val Pro Glu Ser Tyr Ser Gly				
2225		2230		2235
Glu Leu Glu Cys Ile Val Ser Pro Glu Asn Ile Glu Gly Lys Trp				
2240		2245		2250
Tyr His Asn Asp Val Glu Leu Lys Ser Asn Gly Lys Tyr Thr Ile				
2255		2260		2265
Thr Ser Arg Arg Gly Arg Gln Asn Leu Thr Val Lys Asp Val Thr				
2270		2275		2280
Lys Glu Asp Gln Gly Glu Tyr Ser Phe Val Ile Asp Gly Lys Lys				
2285		2290		2295
Thr Thr Cys Lys Leu Lys Met Lys Pro Arg Pro Ile Ala Ile Leu				
2300		2305		2310
Gln Gly Leu Ser Asp Gln Lys Val Cys Glu Gly Asp Ile Val Gln				
2315		2320		2325
Leu Glu Val Lys Val Ser Leu Glu Ser Val Glu Gly Val Trp Met				
2330		2335		2340
Lys Asp Gly Gln Glu Val Gln Pro Ser Asp Arg Val His Ile Val				
2345		2350		2355
Ile Asp Lys Gln Ser His Met Leu Leu Ile Glu Asp Met Thr Lys				
2360		2365		2370
Glu Asp Ala Gly Asn Tyr Ser Phe Thr Ile Pro Ala Leu Gly Leu				
2375		2380		2385

Ser Thr 2390	Ser Gly Arg Val	Ser Val Tyr Ser Val	Asp Val Ile Thr 2400
Pro Leu 2405	Lys Asp Val Asn	Val Ile Glu Gly Thr	Lys Ala Val Leu 2415
Glu Cys 2420	Lys Val Ser Val	Pro Asp Val Thr Ser	Val Lys Trp Tyr 2430
Leu Asn 2435	Asp Glu Gln Ile	Lys Pro Asp Asp Arg	Val Gln Ala Ile 2445
Val Lys 2450	Gly Thr Lys Gln	Arg Leu Val Ile Asn	Arg Thr His Ala 2460
Ser Asp 2465	Glu Gly Pro Tyr	Lys Leu Ile Val Gly	Arg Val Glu Thr 2475
Asn Cys 2480	Asn Leu Ser Val	Glu Lys Ile Lys Ile	Ile Arg Gly Leu 2490
Arg Asp 2495	Leu Thr Cys Thr	Glu Thr Gln Asn Val	Val Phe Glu Val 2505
Glu Leu 2510	Ser His Ser Gly	Ile Asp Val Leu Trp	Asn Phe Lys Asp 2520
Lys Glu 2525	Ile Lys Pro Ser	Ser Lys Tyr Lys Ile	Glu Ala His Gly 2535
Lys Ile 2540	Tyr Lys Leu Thr	Val Leu Asn Met Met	Lys Asp Asp Glu 2550
Gly Lys 2555	Tyr Thr Phe Tyr	Ala Gly Glu Asn Met	Thr Ser Gly Lys 2565
Leu Thr 2570	Val Ala Gly Gly	Ala Ile Ser Lys Pro	Leu Thr Asp Gln 2580
Thr Val 2585	Ala Glu Ser Gln	Glu Ala Val Phe Glu	Cys Glu Val Ala 2595
Asn Pro 2600	Asp Ser Lys Gly	Glu Trp Leu Arg Asp	Gly Lys His Leu 2610

Pro	Leu	Thr	Asn	Asn	Ile	Arg	Ser	Glu	Ser	Asp	Gly	His	Lys	Arg
2615						2620					2625			
Arg	Leu	Ile	Ile	Ala	Ala	Thr	Lys	Leu	Asp	Asp	Ile	Gly	Glu	Tyr
2630						2635					2640			
Thr	Tyr	Lys	Val	Ala	Thr	Ser	Lys	Thr	Ser	Ala	Lys	Leu	Lys	Val
2645						2650					2655			
Glu	Ala	Val	Lys	Ile	Lys	Lys	Thr	Leu	Lys	Asn	Leu	Thr	Val	Thr
2660						2665					2670			
Glu	Thr	Gln	Asp	Ala	Val	Phe	Thr	Val	Glu	Leu	Thr	His	Pro	Asn
2675						2680					2685			
Val	Lys	Gly	Val	Gln	Trp	Ile	Lys	Asn	Gly	Val	Val	Leu	Glu	Ser
2690						2695					2700			
Asn	Glu	Lys	Tyr	Ala	Ile	Ser	Val	Lys	Gly	Thr	Ile	Tyr	Ser	Leu
2705						2710					2715			
Arg	Ile	Lys	Asn	Cys	Ala	Ile	Val	Asp	Glu	Ser	Val	Tyr	Gly	Phe
2720						2725					2730			
Arg	Leu	Gly	Arg	Leu	Gly	Ala	Ser	Ala	Arg	Leu	His	Val	Glu	Thr
2735						2740					2745			
Val	Lys	Ile	Ile	Lys	Lys	Pro	Lys	Asp	Val	Thr	Ala	Leu	Glu	Asn
2750						2755					2760			
Ala	Thr	Val	Ala	Phe	Glu	Val	Ser	Val	Ser	His	Asp	Thr	Val	Pro
2765						2770					2775			
Val	Lys	Trp	Phe	His	Lys	Ser	Val	Glu	Ile	Lys	Pro	Ser	Asp	Lys
2780						2785					2790			
His	Arg	Leu	Val	Ser	Glu	Arg	Lys	Val	His	Lys	Leu	Met	Leu	Gln
2795						2800					2805			
Asn	Ile	Ser	Pro	Ser	Asp	Ala	Gly	Glu	Tyr	Thr	Ala	Val	Val	Gly
2810						2815					2820			
Gln	Leu	Glu	Cys	Lys	Ala	Lys	Leu	Phe	Val	Glu	Thr	Leu	His	Ile

2825						2830						2835			
Thr Lys	Thr Met	Lys Asn	Ile	Glu Val	Pro Glu	Thr Lys	Thr Ala								
2840			2845			2850									
Ser Phe	Glu Cys	Glu Val	Ser	His Phe	Asn Val	Pro	Ser Met	Trp							
2855			2860			2865									
Leu Lys	Asn Gly	Val Glu	Ile	Glu Met	Ser Glu	Lys	Phe Lys	Ile							
2870			2875			2880									
Val Val	Gln Gly	Lys Leu	His	Gln Leu	Ile Ile	Met	Asn Thr	Ser							
2885			2890			2895									
Thr Glu	Asp Ser	Ala Glu	Tyr	Thr Phe	Val Cys	Gly	Asn Asp	Gln							
2900			2905			2910									
Val Ser	Ala Thr	Leu Thr	Val	Thr Pro	Ile Met	Ile	Thr Ser	Met							
2915			2920			2925									
Leu Lys	Asp Ile	Asn Ala	Glu	Glu Lys	Asp Thr	Ile	Thr Phe	Glu							
2930			2935			2940									
Val Thr	Val Asn	Tyr Glu	Gly	Ile Ser	Tyr Lys	Trp	Leu Lys	Asn							
2945			2950			2955									
Gly Val	Glu Ile	Lys Ser	Thr	Asp Lys	Cys Gln	Met	Arg Thr	Lys							
2960			2965			2970									
Lys Leu	Thr His	Ser Leu	Asn	Ile Arg	Asn Val	His	Phe Gly	Asp							
2975			2980			2985									
Ala Ala	Asp Tyr	Thr Phe	Val	Ala Gly	Lys Ala	Thr	Ser Thr	Ala							
2990			2995			3000									
Thr Leu	Tyr Val	Glu Ala	Arg	His Ile	Glu Phe	Arg	Lys His	Ile							
3005			3010			3015									
Lys Asp	Ile Lys	Val Leu	Glu	Lys Lys	Arg Ala	Met	Phe Glu	Cys							
3020			3025			3030									
Glu Val	Ser Glu	Pro Asp	Ile	Thr Val	Gln Trp	Met	Lys Asp	Asp							
3035			3040			3045									

Gln Glu	Leu Gln Ile Thr	Asp	Arg Ile Lys Ile	Gln	Lys Glu Lys
3050		3055		3060	
Tyr Val	His Arg Leu Leu	Ile	Pro Ser Thr Arg	Met	Ser Asp Ala
3065		3070		3075	
Gly Lys	Tyr Thr Val Val	Ala	Gly Gly Asn Val	Ser	Thr Ala Lys
3080		3085		3090	
Leu Phe	Val Glu Gly Arg	Asp	Val Arg Ile Arg	Ser	Ile Lys Lys
3095		3100		3105	
Glu Val	Gln Val Ile Glu	Lys	Gln Arg Ala Val	Val	Glu Phe Glu
3110		3115		3120	
Val Asn	Glu Asp Asp Val	Asp	Ala His Trp Tyr	Lys	Asp Gly Ile
3125		3130		3135	
Glu Ile	Asn Phe Gln Val	Gln	Glu Arg His Lys	Tyr	Val Val Glu
3140		3145		3150	
Arg Arg	Ile His Arg Met	Phe	Ile Ser Glu Thr	Arg	Gln Ser Asp
3155		3160		3165	
Ala Gly	Glu Tyr Thr Phe	Val	Ala Gly Arg Asn	Arg	Ser Ser Val
3170		3175		3180	
Thr Leu	Tyr Val Asn Ala	Pro	Glu Pro Pro Gln	Val	Leu Gln Glu
3185		3190		3195	
Leu Gln	Pro Val Thr Val	Gln	Ser Gly Lys Pro	Ala	Arg Phe Cys
3200		3205		3210	
Ala Met	Ile Ser Gly Arg	Pro	Gln Pro Lys Ile	Ser	Trp Tyr Lys
3215		3220		3225	
Glu Glu	Gln Leu Leu Ser	Thr	Gly Phe Lys Cys	Lys	Phe Leu His
3230		3235		3240	
Asp Gly	Gln Glu Tyr Thr	Leu	Leu Leu Ile Glu	Ala	Phe Pro Glu
3245		3250		3255	
Asp Ala	Ala Val Tyr Thr	Cys	Glu Ala Lys Asn	Asp	Tyr Gly Val
3260		3265		3270	

3485		3490		3495
Pro Ser Ala Asp Tyr Lys Phe Val Phe Asp Gly Asp Asp His Ser	3500	3505		3510
Leu Ile Ile Leu Phe Thr Lys Leu Glu Asp Glu Gly Glu Tyr Thr	3515	3520		3525
Cys Met Ala Ser Asn Asp Tyr Gly Lys Thr Ile Cys Ser Ala Tyr	3530	3535		3540
Leu Lys Ile Asn Ser Lys Gly Glu Gly His Lys Asp Thr Glu Thr	3545	3550		3555
Glu Ser Ala Val Ala Lys Ser Leu Glu Lys Leu Gly Gly Pro Cys	3560	3565		3570
Pro Pro His Phe Leu Lys Glu Leu Lys Pro Ile Arg Cys Ala Gln	3575	3580		3585
Gly Leu Pro Ala Ile Phe Glu Tyr Thr Val Val Gly Glu Pro Ala	3590	3595		3600
Pro Thr Val Thr Trp Phe Lys Glu Asn Lys Gln Leu Cys Thr Ser	3605	3610		3615
Val Tyr Tyr Thr Ile Ile His Asn Pro Asn Gly Ser Gly Thr Phe	3620	3625		3630
Ile Val Asn Asp Pro Gln Arg Glu Asp Ser Gly Leu Tyr Ile Cys	3635	3640		3645
Lys Ala Glu Asn Met Leu Gly Glu Ser Thr Cys Ala Ala Glu Leu	3650	3655		3660
Leu Val Leu Leu Glu Asp Thr Asp Met Thr Asp Thr Pro Cys Lys	3665	3670		3675
Ala Lys Ser Thr Pro Glu Ala Pro Glu Asp Phe Pro Gln Thr Pro	3680	3685		3690
Leu Lys Gly Pro Ala Val Glu Ala Leu Asp Ser Glu Gln Glu Ile	3695	3700		3705

Ala Thr	Phe Val	Lys Asp	Thr	Ile Leu	Lys Ala	Ala	Leu Ile	Thr
3710			3715			3720		
Glu Glu	Asn Gln	Gln Leu	Ser	Tyr Glu	His Ile	Ala	Lys Ala	Asn
3725			3730			3735		
Glu Leu	Ser Ser	Gln Leu	Pro	Leu Gly	Ala Gln	Glu	Leu Gln	Ser
3740			3745			3750		
Ile Leu	Glu Gln	Asp Lys	Leu	Thr Pro	Glu Ser	Thr	Arg Glu	Phe
3755			3760			3765		
Leu Cys	Ile Asn	Gly Ser	Ile	His Phe	Gln Pro	Leu	Lys Glu	Pro
3770			3775			3780		
Ser Pro	Asn Leu	Gln Leu	Gln	Ile Val	Gln Ser	Gln	Lys Thr	Phe
3785			3790			3795		
Ser Lys	Glu Gly	Ile Leu	Met	Pro Glu	Glu Pro	Glu	Thr Gln	Ala
3800			3805			3810		
Val Leu	Ser Asp	Thr Glu	Lys	Ile Phe	Pro Ser	Ala	Met Ser	Ile
3815			3820			3825		
Glu Gln	Ile Asn	Ser Leu	Thr	Val Glu	Pro Leu	Lys	Thr Leu	Leu
3830			3835			3840		
Ala Glu	Pro Glu	Gly Asn	Tyr	Pro Gln	Ser Ser	Ile	Glu Pro	Pro
3845			3850			3855		
Met His	Ser Tyr	Leu Thr	Ser	Val Ala	Glu Glu	Val	Leu Ser	Leu
3860			3865			3870		
Lys Glu	Lys Thr	Val Ser	Asp	Thr Asn	Arg Glu	Gln	Arg Val	Thr
3875			3880			3885		
Leu Gln	Lys Gln	Glu Ala	Gln	Ser Ala	Leu Ile	Leu	Ser Gln	Ser
3890			3895			3900		
Leu Ala	Glu Gly	His Val	Glu	Ser Leu	Gln Ser	Pro	Asp Val	Met
3905			3910			3915		
Ile Ser	Gln Val	Asn Tyr	Glu	Pro Leu	Val Pro	Ser	Glu His	Ser
3920			3925			3930		

Cys	Thr	Glu	Gly	Gly	Lys	Ile	Leu	Ile	Glu	Ser	Ala	Asn	Pro	Leu
3935						3940					3945			
Glu	Asn	Ala	Gly	Gln	Asp	Ser	Ala	Val	Arg	Ile	Glu	Glu	Gly	Lys
3950						3955					3960			
Ser	Leu	Arg	Phe	Pro	Leu	Ala	Leu	Glu	Glu	Lys	Gln	Val	Leu	Leu
3965						3970					3975			
Lys	Glu	Glu	His	Ser	Asp	Asn	Val	Val	Met	Pro	Pro	Asp	Gln	Ile
3980						3985					3990			
Ile	Glu	Ser	Lys	Arg	Glu	Pro	Val	Ala	Ile	Lys	Lys	Val	Gln	Glu
3995						4000					4005			
Val	Gln	Gly	Arg	Asp	Leu	Leu	Ser	Lys	Glu	Ser	Leu	Leu	Ser	Gly
4010						4015					4020			
Ile	Pro	Glu	Glu	Gln	Arg	Leu	Asn	Leu	Lys	Ile	Gln	Ile	Cys	Arg
4025						4030					4035			
Ala	Leu	Gln	Ala	Ala	Val	Ala	Ser	Glu	Gln	Pro	Gly	Leu	Phe	Ser
4040						4045					4050			
Glu	Trp	Leu	Arg	Asn	Ile	Glu	Lys	Val	Glu	Val	Glu	Ala	Val	Asn
4055						4060					4065			
Ile	Thr	Gln	Glu	Pro	Arg	His	Ile	Met	Cys	Met	Tyr	Leu	Val	Thr
4070						4075					4080			
Ser	Ala	Lys	Ser	Val	Thr	Glu	Glu	Val	Thr	Ile	Ile	Ile	Glu	Asp
4085						4090					4095			
Val	Asp	Pro	Gln	Met	Ala	Asn	Leu	Lys	Met	Glu	Leu	Arg	Asp	Ala
4100						4105					4110			
Leu	Cys	Ala	Ile	Ile	Tyr	Glu	Glu	Ile	Asp	Ile	Leu	Thr	Ala	Glu
4115						4120					4125			
Gly	Pro	Arg	Ile	Gln	Gln	Gly	Ala	Lys	Thr	Ser	Leu	Gln	Glu	Glu
4130						4135					4140			
Met	Asp	Ser	Phe	Ser	Gly	Ser	Gln	Lys	Val	Glu	Pro	Ile	Thr	Glu

4145		4150		4155
Pro Glu Val Glu Ser Lys Tyr Leu Ile Ser Thr Glu Glu Val Ser				
4160		4165		4170
Tyr Phe Asn Val Gln Ser Arg Val Lys Tyr Leu Asp Ala Thr Pro				
4175		4180		4185
Val Thr Lys Gly Val Ala Ser Ala Val Val Ser Asp Glu Lys Gln				
4190		4195		4200
Asp Glu Ser Leu Lys Pro Ser Glu Glu Lys Glu Glu Ser Ser Ser				
4205		4210		4215
Glu Ser Gly Thr Glu Glu Val Ala Thr Val Lys Ile Gln Glu Ala				
4220		4225		4230
Glu Gly Gly Leu Ile Lys Glu Asp Gly Pro Met Ile His Thr Pro				
4235		4240		4245
Leu Val Asp Thr Val Ser Glu Glu Gly Asp Ile Val His Leu Thr				
4250		4255		4260
Thr Ser Ile Thr Asn Ala Lys Glu Val Asn Trp Tyr Phe Glu Asn				
4265		4270		4275
Lys Leu Val Pro Ser Asp Glu Lys Phe Lys Cys Leu Gln Asp Gln				
4280		4285		4290
Asn Thr Tyr Thr Leu Val Ile Asp Lys Val Asn Thr Glu Asp His				
4295		4300		4305
Gln Gly Glu Tyr Val Cys Glu Ala Leu Asn Asp Ser Gly Lys Thr				
4310		4315		4320
Ala Thr Ser Ala Lys Leu Thr Val Val Lys Arg Ala Ala Pro Val				
4325		4330		4335
Ile Lys Arg Lys Ile Glu Pro Leu Glu Val Ala Leu Gly His Leu				
4340		4345		4350
Ala Lys Phe Thr Cys Glu Ile Gln Ser Ala Pro Asn Val Arg Phe				
4355		4360		4365

Gln	Trp	Phe	Lys	Ala	Gly	Arg	Glu	Ile	Tyr	Glu	Ser	Asp	Lys	Cys
4370						4375					4380			
Ser	Ile	Arg	Ser	Ser	Lys	Tyr	Ile	Ser	Ser	Leu	Glu	Ile	Leu	Arg
4385						4390					4395			
Thr	Gln	Val	Val	Asp	Cys	Gly	Glu	Tyr	Thr	Cys	Lys	Ala	Ser	Asn
4400						4405					4410			
Glu	Tyr	Gly	Ser	Val	Ser	Cys	Thr	Ala	Thr	Leu	Thr	Val	Thr	Val
4415						4420					4425			
Pro	Gly	Gly	Glu	Lys	Lys	Val	Arg	Lys	Leu	Leu	Pro	Glu	Arg	Lys
4430						4435					4440			
Pro	Glu	Pro	Lys	Glu	Glu	Val	Val	Leu	Lys	Ser	Val	Leu	Arg	Lys
4445						4450					4455			
Arg	Pro	Glu	Glu	Glu	Glu	Pro	Lys	Val	Glu	Pro	Lys	Lys	Leu	Glu
4460						4465					4470			
Lys	Val	Lys	Lys	Pro	Ala	Val	Pro	Glu	Pro	Pro	Pro	Pro	Lys	Pro
4475						4480					4485			
Val	Glu	Glu	Val	Glu	Val	Pro	Thr	Val	Thr	Lys	Arg	Glu	Arg	Lys
4490						4495					4500			
Ile	Pro	Glu	Pro	Thr	Lys	Val	Pro	Glu	Ile	Lys	Pro	Ala	Ile	Pro
4505						4510					4515			
Leu	Pro	Ala	Pro	Glu	Pro	Lys	Pro	Lys	Pro	Glu	Ala	Glu	Val	Lys
4520						4525					4530			
Thr	Ile	Lys	Pro	Pro	Pro	Val	Glu	Pro	Glu	Pro	Thr	Pro	Ile	Ala
4535						4540					4545			
Ala	Pro	Val	Thr	Val	Pro	Val	Val	Gly	Lys	Lys	Ala	Glu	Ala	Lys
4550						4555					4560			
Ala	Pro	Lys	Glu	Glu	Ala	Ala	Lys	Pro	Lys	Gly	Pro	Ile	Lys	Gly
4565						4570					4575			
Val	Pro	Lys	Lys	Thr	Pro	Ser	Pro	Ile	Glu	Ala	Glu	Arg	Arg	Lys
4580						4585					4590			

Leu Arg Pro Gly Ser Gly Gly Glu Lys Pro Pro Asp Glu Ala Pro
 4595 4600 4605
 Phe Thr Tyr Gln Leu Lys Ala Val Pro Leu Lys Phe Val Lys Glu
 4610 4615 4620
 Ile Lys Asp Ile Ile Leu Thr Glu Ser Glu Phe Val Gly Ser Ser
 4625 4630 4635
 Ala Ile Phe Glu Cys Leu Val Ser Pro Ser Thr Ala Ile Thr Thr
 4640 4645 4650
 Trp Met Lys Asp Gly Ser Asn Ile Arg Glu Ser Pro Lys His Arg
 4655 4660 4665
 Phe Ile Ala Asp Gly Lys Asp Arg Lys Leu His Ile Ile Asp Val
 4670 4675 4680
 Gln Leu Ser Asp Ala Gly Glu Tyr Thr Cys Val Leu Arg Leu Gly
 4685 4690 4695
 Asn Lys Glu Lys Thr Ser Thr Ala Lys Leu Val Val Glu Glu Leu
 4700 4705 4710
 Pro Val Arg Phe Val Lys Thr Leu Glu Glu Glu Val Thr Val Val
 4715 4720 4725
 Lys Gly Gln Pro Leu Tyr Leu Ser Cys Glu Leu Asn Lys Glu Arg
 4730 4735 4740
 Asp Val Val Trp Arg Lys Asp Gly Lys Ile Val Val Glu Lys Pro
 4745 4750 4755
 Gly Arg Ile Val Pro Gly Val Ile Gly Leu Met Arg Ala Leu Thr
 4760 4765 4770
 Ile Asn Asp Ala Asp Asp Thr Asp Ala Gly Thr Tyr Thr Val Thr
 4775 4780 4785
 Val Glu Asn Ala Asn Asn Leu Glu Cys Ser Ser Cys Val Lys Val
 4790 4795 4800
 Val Glu Val Ile Arg Asp Trp Leu Val Lys Pro Ile Arg Asp Gln

4805					4810					4815				
His	Val	Lys	Pro	Lys	Gly	Thr	Ala	Ile	Phe	Ala	Cys	Asp	Ile	Ala
4820					4825					4830				
Lys	Asp	Thr	Pro	Asn	Ile	Lys	Trp	Phe	Lys	Gly	Tyr	Asp	Glu	Ile
4835					4840					4845				
Pro	Ala	Glu	Pro	Asn	Asp	Lys	Thr	Glu	Ile	Leu	Arg	Asp	Gly	Asn
4850					4855					4860				
His	Leu	Tyr	Leu	Lys	Ile	Lys	Asn	Ala	Met	Pro	Glu	Asp	Ile	Ala
4865					4870					4875				
Glu	Tyr	Ala	Val	Glu	Ile	Glu	Gly	Lys	Arg	Tyr	Pro	Ala	Lys	Leu
4880					4885					4890				
Thr	Leu	Gly	Glu	Arg	Glu	Val	Glu	Leu	Leu	Lys	Pro	Ile	Glu	Asp
4895					4900					4905				
Val	Thr	Ile	Tyr	Glu	Lys	Glu	Ser	Ala	Ser	Phe	Asp	Ala	Glu	Ile
4910					4915					4920				
Ser	Glu	Ala	Asp	Ile	Pro	Gly	Gln	Trp	Lys	Leu	Lys	Gly	Glu	Leu
4925					4930					4935				
Leu	Arg	Pro	Ser	Pro	Thr	Cys	Glu	Ile	Lys	Ala	Glu	Gly	Gly	Lys
4940					4945					4950				
Arg	Phe	Leu	Thr	Leu	His	Lys	Val	Lys	Leu	Asp	Gln	Ala	Gly	Glu
4955					4960					4965				
Val	Leu	Tyr	Gln	Ala	Leu	Asn	Ala	Ile	Thr	Thr	Ala	Ile	Leu	Thr
4970					4975					4980				
Val	Lys	Glu	Ile	Glu	Leu	Asp	Phe	Ala	Val	Pro	Leu	Lys	Asp	Val
4985					4990					4995				
Thr	Val	Pro	Glu	Arg	Arg	Gln	Ala	Arg	Phe	Glu	Cys	Val	Leu	Thr
5000					5005					5010				
Arg	Glu	Ala	Asn	Val	Ile	Trp	Ser	Lys	Gly	Pro	Asp	Ile	Ile	Lys
5015					5020					5025				

Ser	Ser	Asp	Lys	Phe	Asp	Ile	Ile	Ala	Asp	Gly	Lys	Lys	His	Ile
5030						5035					5040			
Leu	Val	Ile	Asn	Asp	Ser	Gln	Phe	Asp	Asp	Glu	Gly	Val	Tyr	Thr
5045						5050					5055			
Ala	Glu	Val	Glu	Gly	Lys	Lys	Thr	Ser	Ala	Arg	Leu	Phe	Val	Thr
5060						5065					5070			
Gly	Ile	Arg	Leu	Lys	Phe	Met	Ser	Pro	Leu	Glu	Asp	Gln	Thr	Val
5075						5080					5085			
Lys	Glu	Gly	Glu	Thr	Ala	Thr	Phe	Val	Cys	Glu	Leu	Ser	His	Glu
5090						5095					5100			
Lys	Met	His	Val	Val	Trp	Phe	Lys	Asn	Asp	Ala	Lys	Leu	His	Thr
5105						5110					5115			
Ser	Arg	Thr	Val	Leu	Ile	Ser	Ser	Glu	Gly	Lys	Thr	His	Lys	Leu
5120						5125					5130			
Glu	Met	Lys	Glu	Val	Thr	Leu	Asp	Asp	Ile	Ser	Gln	Ile	Lys	Ala
5135						5140					5145			
Gln	Val	Lys	Glu	Leu	Ser	Ser	Thr	Ala	Gln	Leu	Lys	Val	Leu	Glu
5150						5155					5160			
Ala	Asp	Pro	Tyr	Phe	Thr	Val	Lys	Leu	His	Asp	Lys	Thr	Ala	Val
5165						5170					5175			
Glu	Lys	Asp	Glu	Ile	Thr	Leu	Lys	Cys	Glu	Val	Ser	Lys	Asp	Val
5180						5185					5190			
Pro	Val	Lys	Trp	Phe	Lys	Asp	Gly	Glu	Glu	Ile	Val	Pro	Ser	Pro
5195						5200					5205			
Lys	Tyr	Ser	Ile	Lys	Ala	Asp	Gly	Leu	Arg	Arg	Ile	Leu	Lys	Ile
5210						5215					5220			
Lys	Lys	Ala	Asp	Leu	Lys	Asp	Lys	Gly	Glu	Tyr	Val	Cys	Asp	Cys
5225						5230					5235			
Gly	Thr	Asp	Lys	Thr	Lys	Ala	Asn	Val	Thr	Val	Glu	Ala	Arg	Leu
5240						5245					5250			

Ile	Glu	Val	Glu	Lys	Pro	Leu	Tyr	Gly	Val	Glu	Val	Phe	Val	Gly
5255						5260					5265			
Glu	Thr	Ala	His	Phe	Glu	Ile	Glu	Leu	Ser	Glu	Pro	Asp	Val	His
5270						5275					5280			
Gly	Gln	Trp	Lys	Leu	Lys	Gly	Gln	Pro	Leu	Thr	Ala	Ser	Pro	Asp
5285						5290					5295			
Cys	Glu	Ile	Ile	Glu	Asp	Gly	Lys	Lys	His	Ile	Leu	Ile	Leu	His
5300						5305					5310			
Asn	Cys	Gln	Leu	Gly	Met	Thr	Gly	Glu	Val	Ser	Phe	Gln	Ala	Ala
5315						5320					5325			
Asn	Ala	Lys	Ser	Ala	Ala	Asn	Leu	Lys	Val	Lys	Glu	Leu	Pro	Leu
5330						5335					5340			
Ile	Phe	Ile	Thr	Pro	Leu	Ser	Asp	Val	Lys	Val	Phe	Glu	Lys	Asp
5345						5350					5355			
Glu	Ala	Lys	Phe	Glu	Cys	Glu	Val	Ser	Arg	Glu	Pro	Lys	Thr	Phe
5360						5365					5370			
Arg	Trp	Leu	Lys	Gly	Thr	Gln	Glu	Ile	Thr	Gly	Asp	Asp	Arg	Phe
5375						5380					5385			
Glu	Leu	Ile	Lys	Asp	Gly	Thr	Lys	His	Ser	Met	Val	Ile	Lys	Ser
5390						5395					5400			
Ala	Ala	Phe	Glu	Asp	Glu	Ala	Lys	Tyr	Met	Phe	Glu	Ala	Glu	Asp
5405						5410					5415			
Lys	His	Thr	Ser	Gly	Lys	Leu	Ile	Ile	Glu	Gly	Ile	Arg	Leu	Lys
5420						5425					5430			
Phe	Leu	Thr	Pro	Leu	Lys	Asp	Val	Thr	Ala	Lys	Glu	Lys	Glu	Ser
5435						5440					5445			
Ala	Val	Phe	Thr	Val	Glu	Leu	Ser	His	Asp	Asn	Ile	Arg	Val	Lys
5450						5455					5460			
Trp	Phe	Lys	Asn	Asp	Gln	Arg	Leu	His	Thr	Thr	Arg	Ser	Val	Ser

5465		5470		5475
Met Gln Asp Glu Gly Lys Thr His Ser Ile Thr Phe Lys Asp Leu				
5480		5485		5490
Ser Ile Asp Asp Thr Ser Gln Ile Arg Val Glu Ala Met Gly Met				
5495		5500		5505
Ser Ser Glu Ala Lys Leu Thr Val Leu Glu Gly Asp Pro Tyr Phe				
5510		5515		5520
Thr Gly Lys Leu Gln Asp Tyr Thr Gly Val Glu Lys Asp Glu Val				
5525		5530		5535
Ile Leu Gln Cys Glu Ile Ser Lys Ala Asp Ala Pro Val Lys Trp				
5540		5545		5550
Phe Lys Asp Gly Lys Glu Ile Lys Pro Ser Lys Asn Ala Val Ile				
5555		5560		5565
Lys Thr Asp Gly Lys Lys Arg Met Leu Ile Leu Lys Lys Ala Leu				
5570		5575		5580
Lys Ser Asp Ile Gly Gln Tyr Thr Cys Asp Cys Gly Thr Asp Lys				
5585		5590		5595
Thr Ser Gly Lys Leu Asp Ile Glu Asp Arg Glu Ile Lys Leu Val				
5600		5605		5610
Arg Pro Leu His Ser Val Glu Val Met Glu Thr Glu Thr Ala Arg				
5615		5620		5625
Phe Glu Thr Glu Ile Ser Glu Asp Asp Ile His Ala Asn Trp Lys				
5630		5635		5640
Leu Lys Gly Glu Ala Leu Leu Gln Thr Pro Asp Cys Glu Ile Lys				
5645		5650		5655
Glu Glu Gly Lys Ile His Ser Leu Val Leu His Asn Cys Arg Leu				
5660		5665		5670
Asp Gln Thr Gly Gly Val Asp Phe Gln Ala Ala Asn Val Lys Ser				
5675		5680		5685

Ser	Ala	His	Leu	Arg	Val	Lys	Pro	Arg	Val	Ile	Gly	Leu	Leu	Arg
5690						5695					5700			
Pro	Leu	Lys	Asp	Val	Thr	Val	Thr	Ala	Gly	Glu	Thr	Ala	Thr	Phe
5705						5710					5715			
Asp	Cys	Glu	Leu	Ser	Tyr	Glu	Asp	Ile	Pro	Val	Glu	Trp	Tyr	Leu
5720						5725					5730			
Lys	Gly	Lys	Lys	Leu	Glu	Pro	Ser	Asp	Lys	Val	Val	Pro	Arg	Ser
5735						5740					5745			
Glu	Gly	Lys	Val	His	Thr	Leu	Thr	Leu	Arg	Asp	Val	Lys	Leu	Glu
5750						5755					5760			
Asp	Ala	Gly	Glu	Val	Gln	Leu	Thr	Ala	Lys	Asp	Phe	Lys	Thr	His
5765						5770					5775			
Ala	Asn	Leu	Phe	Val	Lys	Glu	Pro	Pro	Val	Glu	Phe	Thr	Lys	Pro
5780						5785					5790			
Leu	Glu	Asp	Gln	Thr	Val	Glu	Glu	Gly	Ala	Thr	Ala	Val	Leu	Glu
5795						5800					5805			
Cys	Glu	Val	Ser	Arg	Glu	Asn	Ala	Lys	Val	Lys	Trp	Phe	Lys	Asn
5810						5815					5820			
Gly	Thr	Glu	Ile	Leu	Lys	Ser	Lys	Lys	Tyr	Glu	Ile	Val	Ala	Asp
5825						5830					5835			
Gly	Arg	Val	Arg	Lys	Leu	Val	Ile	His	Asp	Cys	Thr	Pro	Glu	Asp
5840						5845					5850			
Ile	Lys	Thr	Tyr	Thr	Cys	Asp	Ala	Lys	Asp	Phe	Lys	Thr	Ser	Cys
5855						5860					5865			
Asn	Leu	Asn	Val	Val	Pro	Pro	His	Val	Glu	Phe	Leu	Arg	Pro	Leu
5870						5875					5880			
Thr	Asp	Leu	Gln	Val	Arg	Glu	Lys	Glu	Met	Ala	Arg	Phe	Glu	Cys
5885						5890					5895			
Glu	Leu	Ser	Arg	Glu	Asn	Ala	Lys	Val	Lys	Trp	Phe	Lys	Asp	Gly
5900						5905					5910			

Ala	Glu	Ile	Lys	Lys	Gly	Lys	Lys	Tyr	Asp	Ile	Ile	Ser	Lys	Gly
5915						5920					5925			
Ala	Val	Arg	Ile	Leu	Val	Ile	Asn	Lys	Cys	Leu	Leu	Asp	Asp	Glu
5930						5935					5940			
Ala	Glu	Tyr	Ser	Cys	Glu	Val	Arg	Thr	Ala	Arg	Thr	Ser	Gly	Met
5945						5950					5955			
Leu	Thr	Val	Leu	Glu	Glu	Glu	Ala	Val	Phe	Thr	Lys	Asn	Leu	Ala
5960						5965					5970			
Asn	Ile	Glu	Val	Ser	Glu	Thr	Asp	Thr	Ile	Lys	Leu	Val	Cys	Glu
5975						5980					5985			
Val	Ser	Lys	Pro	Gly	Ala	Glu	Val	Ile	Trp	Tyr	Lys	Gly	Asp	Glu
5990						5995					6000			
Glu	Ile	Ile	Glu	Thr	Gly	Arg	Tyr	Glu	Ile	Leu	Thr	Glu	Gly	Arg
6005						6010					6015			
Lys	Arg	Ile	Leu	Val	Ile	Gln	Asn	Ala	His	Leu	Glu	Asp	Ala	Gly
6020						6025					6030			
Asn	Tyr	Asn	Cys	Arg	Leu	Pro	Ser	Ser	Arg	Thr	Asp	Gly	Lys	Val
6035						6040					6045			
Lys	Val	His	Glu	Leu	Ala	Ala	Glu	Phe	Ile	Ser	Lys	Pro	Gln	Asn
6050						6055					6060			
Leu	Glu	Ile	Leu	Glu	Gly	Glu	Lys	Ala	Glu	Phe	Val	Cys	Ser	Ile
6065						6070					6075			
Ser	Lys	Glu	Ser	Phe	Pro	Val	Gln	Trp	Lys	Arg	Asp	Asp	Lys	Thr
6080						6085					6090			
Leu	Glu	Ser	Gly	Asp	Lys	Tyr	Asp	Val	Ile	Ala	Asp	Gly	Lys	Lys
6095						6100					6105			
Arg	Val	Leu	Val	Val	Lys	Asp	Ala	Thr	Leu	Gln	Asp	Met	Gly	Thr
6110						6115					6120			
Tyr	Val	Val	Met	Val	Gly	Ala	Ala	Arg	Ala	Ala	Ala	His	Leu	Thr

6125		6130		6135
Val Ile Glu Lys Leu Arg	Ile 6140	Val Val Pro Leu	Lys 6150	Asp Thr Arg
Val Lys Glu Gln Gln Glu	Val 6155	Val Phe Asn Cys	Glu 6165	Val Asn Thr
Glu Gly Ala Lys Ala Lys	Trp 6170	Phe Arg Asn Glu	Glu 6180	Ala Ile Phe
Asp Ser Ser Lys Tyr Ile	Ile 6185	Leu Gln Lys Asp	Leu 6195	Val Tyr Thr
Leu Arg Ile Arg Asp Ala	His 6200	Leu Asp Asp Gln	Ala 6210	Asn Tyr Asn
Val Ser Leu Thr Asn His	Arg 6215	Gly Glu Asn Val	Lys 6225	Ser Ala Ala
Asn Leu Ile Val Glu Glu	Glu 6230	Asp Leu Arg Ile	Val 6240	Glu Pro Leu
Lys Asp Ile Glu Thr Met	Glu 6245	Lys Lys Ser Val	Thr 6255	Phe Trp Cys
Lys Val Asn Arg Leu Asn	Val 6260	Thr Leu Lys Trp	Thr 6270	Lys Asn Gly
Glu Glu Val Pro Phe Asp	Asn 6275	Arg Val Ser Tyr	Arg 6285	Val Asp Lys
Tyr Lys His Met Leu Thr	Ile 6290	Lys Asp Cys Gly	Phe 6300	Pro Asp Glu
Gly Glu Tyr Ile Val Thr	Ala 6305	Gly Gln Asp Lys	Ser 6315	Val Ala Glu
Leu Leu Ile Ile Glu Ala	Pro 6320	Thr Glu Phe Val	Glu 6330	His Leu Glu
Asp Gln Thr Val Thr Glu	Phe 6335	Asp Asp Ala Val	Phe 6345	Ser Cys Gln

Leu	Ser	Arg	Glu	Lys	Ala	Asn	Val	Lys	Trp	Tyr	Arg	Asn	Gly	Arg
6350						6355					6360			
Glu	Ile	Lys	Glu	Gly	Lys	Lys	Tyr	Lys	Phe	Glu	Lys	Asp	Gly	Ser
6365						6370					6375			
Ile	His	Arg	Leu	Ile	Ile	Lys	Asp	Cys	Arg	Leu	Asp	Asp	Glu	Cys
6380						6385					6390			
Glu	Tyr	Ala	Cys	Gly	Val	Glu	Asp	Arg	Lys	Ser	Arg	Ala	Arg	Leu
6395						6400					6405			
Phe	Val	Glu	Glu	Ile	Pro	Val	Glu	Ile	Ile	Arg	Pro	Pro	Gln	Asp
6410						6415					6420			
Ile	Leu	Glu	Ala	Pro	Gly	Ala	Asp	Val	Val	Phe	Leu	Ala	Glu	Leu
6425						6430					6435			
Asn	Lys	Asp	Lys	Val	Glu	Val	Gln	Trp	Leu	Arg	Asn	Asn	Met	Val
6440						6445					6450			
Val	Val	Gln	Gly	Asp	Lys	His	Gln	Met	Met	Ser	Glu	Gly	Lys	Ile
6455						6460					6465			
His	Arg	Leu	Gln	Ile	Cys	Asp	Ile	Lys	Pro	Arg	Asp	Gln	Gly	Glu
6470						6475					6480			
Tyr	Arg	Phe	Ile	Ala	Lys	Asp	Lys	Glu	Ala	Arg	Ala	Lys	Leu	Glu
6485						6490					6495			
Leu	Ala	Ala	Ala	Pro	Lys	Ile	Lys	Thr	Ala	Asp	Gln	Asp	Leu	Val
6500						6505					6510			
Val	Asp	Val	Gly	Lys	Pro	Leu	Thr	Met	Val	Val	Pro	Tyr	Asp	Ala
6515						6520					6525			
Tyr	Pro	Lys	Ala	Glu	Ala	Glu	Trp	Phe	Lys	Glu	Asn	Glu	Pro	Leu
6530						6535					6540			
Ser	Thr	Lys	Thr	Ile	Asp	Thr	Thr	Ala	Glu	Gln	Thr	Ser	Phe	Arg
6545						6550					6555			
Ile	Leu	Glu	Ala	Lys	Lys	Gly	Asp	Lys	Gly	Arg	Tyr	Lys	Ile	Val
6560						6565					6570			

Leu	Gln	Asn	Lys	His	Gly	Lys	Ala	Glu	Gly	Phe	Ile	Asn	Leu	Lys
6575						6580					6585			
Val	Ile	Asp	Val	Pro	Gly	Pro	Val	Arg	Asn	Leu	Glu	Val	Thr	Glu
6590						6595					6600			
Thr	Phe	Asp	Gly	Glu	Val	Ser	Leu	Ala	Trp	Glu	Glu	Pro	Leu	Thr
6605						6610					6615			
Asp	Gly	Gly	Ser	Lys	Ile	Ile	Gly	Tyr	Val	Val	Glu	Arg	Arg	Asp
6620						6625					6630			
Ile	Lys	Arg	Lys	Thr	Trp	Val	Leu	Ala	Thr	Asp	Arg	Ala	Glu	Ser
6635						6640					6645			
Cys	Glu	Phe	Thr	Val	Thr	Gly	Leu	Gln	Lys	Gly	Gly	Val	Glu	Tyr
6650						6655					6660			
Leu	Phe	Arg	Val	Ser	Ala	Arg	Asn	Arg	Val	Gly	Thr	Gly	Glu	Pro
6665						6670					6675			
Val	Glu	Thr	Asp	Asn	Pro	Val	Glu	Ala	Arg	Ser	Lys	Tyr	Asp	Val
6680						6685					6690			
Pro	Gly	Pro	Pro	Leu	Asn	Val	Thr	Ile	Thr	Asp	Val	Asn	Arg	Phe
6695						6700					6705			
Gly	Val	Ser	Leu	Thr	Trp	Glu	Pro	Pro	Glu	Tyr	Asp	Gly	Gly	Ala
6710						6715					6720			
Glu	Ile	Thr	Asn	Tyr	Val	Ile	Glu	Leu	Arg	Asp	Lys	Thr	Ser	Ile
6725						6730					6735			
Arg	Trp	Asp	Thr	Ala	Met	Thr	Val	Arg	Ala	Glu	Asp	Leu	Ser	Ala
6740						6745					6750			
Thr	Val	Thr	Asp	Val	Val	Glu	Gly	Gln	Glu	Tyr	Ser	Phe	Arg	Val
6755						6760					6765			
Arg	Ala	Gln	Asn	Arg	Ile	Gly	Val	Gly	Lys	Pro	Ser	Ala	Ala	Thr
6770						6775					6780			
Pro	Phe	Val	Lys	Val	Ala	Asp	Pro	Ile	Glu	Arg	Pro	Ser	Pro	Pro

6785		6790		6795
Val Asn 6800	Leu Thr Ser Ser	Asp 6805	Gln Thr Gln Ser	Ser 6810 Val Gln Leu
Lys Trp 6815	Glu Pro Pro Leu	Lys 6820	Asp Gly Gly Ser	Pro 6825 Ile Leu Gly
Tyr Ile 6830	Ile Glu Arg Cys	Glu 6835	Glu Gly Lys Asp	Asn 6840 Trp Ile Arg
Cys Asn 6845	Met Lys Leu Val	Pro 6850	Glu Leu Thr Tyr	Lys 6855 Val Thr Gly
Leu Glu 6860	Lys Gly Asn Lys	Tyr 6865	Leu Tyr Arg Val	Ser 6870 Ala Glu Asn
Lys Ala 6875	Gly Val Ser Asp	Pro 6880	Ser Glu Ile Leu	Gly 6885 Pro Leu Thr
Ala Asp 6890	Asp Ala Phe Val	Glu 6895	Pro Thr Met Asp	Leu 6900 Ser Ala Phe
Lys Asp 6905	Gly Leu Glu Val	Ile 6910	Val Pro Asn Pro	Ile 6915 Thr Ile Leu
Val Pro 6920	Ser Thr Gly Tyr	Pro 6925	Arg Pro Thr Ala	Thr 6930 Trp Cys Phe
Gly Asp 6935	Lys Val Leu Glu	Thr 6940	Gly Asp Arg Val	Lys 6945 Met Lys Thr
Leu Ser 6950	Ala Tyr Ala Glu	Leu 6955	Val Ile Ser Pro	Ser 6960 Glu Arg Ser
Asp Lys 6965	Gly Ile Tyr Thr	Leu 6970	Lys Leu Glu Asn	Arg 6975 Val Lys Thr
Ile Ser 6980	Gly Glu Ile Asp	Val 6985	Asn Val Ile Ala	Arg 6990 Pro Ser Ala
Pro Lys 6995	Glu Leu Lys Phe	Gly 7000	Asp Ile Thr Lys	Asp 7005 Ser Val His

Leu	Thr	Trp	Glu	Pro	Pro	Asp	Asp	Asp	Gly	Gly	Ser	Pro	Leu	Thr
7010						7015					7020			
Gly	Tyr	Val	Val	Glu	Lys	Arg	Glu	Val	Ser	Arg	Lys	Thr	Trp	Thr
7025						7030					7035			
Lys	Val	Met	Asp	Phe	Val	Thr	Asp	Leu	Glu	Phe	Thr	Val	Pro	Asp
7040						7045					7050			
Leu	Val	Gln	Gly	Lys	Glu	Tyr	Leu	Phe	Lys	Val	Cys	Ala	Arg	Asn
7055						7060					7065			
Lys	Cys	Gly	Pro	Gly	Glu	Pro	Ala	Tyr	Val	Asp	Glu	Pro	Val	Asn
7070						7075					7080			
Met	Ser	Thr	Pro	Ala	Thr	Val	Pro	Asp	Pro	Pro	Glu	Asn	Val	Lys
7085						7090					7095			
Trp	Arg	Asp	Arg	Thr	Ala	Asn	Ser	Ile	Phe	Leu	Thr	Trp	Asp	Pro
7100						7105					7110			
Pro	Lys	Asn	Asp	Gly	Gly	Ser	Arg	Ile	Lys	Gly	Tyr	Ile	Val	Glu
7115						7120					7125			
Arg	Cys	Pro	Arg	Gly	Ser	Asp	Lys	Trp	Val	Ala	Cys	Gly	Glu	Pro
7130						7135					7140			
Val	Ala	Glu	Thr	Lys	Met	Glu	Val	Thr	Gly	Leu	Glu	Glu	Gly	Lys
7145						7150					7155			
Trp	Tyr	Ala	Tyr	Arg	Val	Lys	Thr	Leu	Asn	Arg	Gln	Gly	Ala	Ser
7160						7165					7170			
Lys	Pro	Ser	Arg	Pro	Thr	Glu	Glu	Ile	Gln	Ala	Val	Asp	Thr	Gln
7175						7180					7185			
Glu	Ala	Pro	Glu	Ile	Phe	Leu	Asp	Val	Lys	Leu	Leu	Ala	Gly	Leu
7190						7195					7200			
Thr	Val	Lys	Ala	Gly	Thr	Lys	Ile	Glu	Leu	Pro	Ala	Thr	Val	Thr
7205						7210					7215			
Gly	Lys	Pro	Glu	Pro	Lys	Ile	Thr	Trp	Thr	Lys	Ala	Asp	Met	Ile
7220						7225					7230			

Leu	Lys	Gln	Asp	Lys	Arg	Ile	Thr	Ile	Glu	Asn	Val	Pro	Lys	Lys
7235						7240					7245			
Ser	Thr	Val	Thr	Ile	Val	Asp	Ser	Lys	Arg	Ser	Asp	Thr	Gly	Thr
7250						7255					7260			
Tyr	Ile	Ile	Glu	Ala	Val	Asn	Val	Cys	Gly	Arg	Ala	Thr	Ala	Val
7265						7270					7275			
Val	Glu	Val	Asn	Val	Leu	Asp	Lys	Pro	Gly	Pro	Pro	Ala	Ala	Phe
7280						7285					7290			
Asp	Ile	Thr	Asp	Val	Thr	Asn	Glu	Ser	Cys	Leu	Leu	Thr	Trp	Asn
7295						7300					7305			
Pro	Pro	Arg	Asp	Asp	Gly	Gly	Ser	Lys	Ile	Thr	Asn	Tyr	Val	Val
7310						7315					7320			
Glu	Arg	Arg	Ala	Thr	Asp	Ser	Glu	Val	Trp	His	Lys	Leu	Ser	Ser
7325						7330					7335			
Thr	Val	Lys	Asp	Thr	Asn	Phe	Lys	Ala	Thr	Lys	Leu	Ile	Pro	Asn
7340						7345					7350			
Lys	Glu	Tyr	Ile	Phe	Arg	Val	Ala	Ala	Glu	Asn	Met	Tyr	Gly	Ala
7355						7360					7365			
Gly	Glu	Pro	Val	Gln	Ala	Ser	Pro	Ile	Thr	Ala	Lys	Tyr	Gln	Phe
7370						7375					7380			
Asp	Pro	Pro	Gly	Pro	Pro	Thr	Arg	Leu	Glu	Pro	Ser	Asp	Ile	Thr
7385						7390					7395			
Lys	Asp	Ala	Val	Thr	Leu	Thr	Trp	Cys	Glu	Pro	Asp	Asp	Asp	Gly
7400						7405					7410			
Gly	Ser	Pro	Ile	Thr	Gly	Tyr	Trp	Val	Glu	Arg	Leu	Asp	Pro	Asp
7415						7420					7425			
Thr	Asp	Lys	Trp	Val	Arg	Cys	Asn	Lys	Met	Pro	Val	Lys	Asp	Thr
7430						7435					7440			
Thr	Tyr	Arg	Val	Lys	Gly	Leu	Thr	Asn	Lys	Lys	Lys	Tyr	Arg	Phe

7445						7450						7455			
Arg Val	Leu	Ala	Glu	Asn	Leu	Ala Gly	Pro Gly	Lys	Pro	Ser	Lys				
7460					7465			7470							
Ser Thr	Glu	Pro	Ile	Leu	Ile	Lys Asp	Pro Ile	Asp	Pro	Pro	Trp				
7475					7480			7485							
Pro Pro	Gly	Lys	Pro	Thr	Val	Lys Asp	Val Gly	Lys	Thr	Ser	Val				
7490					7495			7500							
Arg Leu	Asn	Trp	Thr	Lys	Pro	Glu His	Asp Gly	Gly	Ala	Lys	Ile				
7505					7510			7515							
Glu Ser	Tyr	Val	Ile	Glu	Met	Leu Lys	Thr Gly	Thr	Asp	Glu	Trp				
7520					7525			7530							
Val Arg	Val	Ala	Glu	Gly	Val	Pro Thr	Thr Gln	His	Leu	Leu	Pro				
7535					7540			7545							
Gly Leu	Met	Glu	Gly	Gln	Glu	Tyr Ser	Phe Arg	Val	Arg	Ala	Val				
7550					7555			7560							
Asn Lys	Ala	Gly	Glu	Ser	Glu	Pro Ser	Glu Pro	Ser	Asp	Pro	Val				
7565					7570			7575							
Leu Cys	Arg	Glu	Lys	Leu	Tyr	Pro Pro	Ser Pro	Pro	Arg	Trp	Leu				
7580					7585			7590							
Glu Val	Ile	Asn	Ile	Thr	Lys	Asn Thr	Ala Asp	Leu	Lys	Trp	Thr				
7595					7600			7605							
Val Pro	Glu	Lys	Asp	Gly	Gly	Ser Pro	Ile Thr	Asn	Tyr	Ile	Val				
7610					7615			7620							
Glu Lys	Arg	Asp	Val	Arg	Arg	Lys Gly	Trp Gln	Thr	Val	Asp	Thr				
7625					7630			7635							
Thr Val	Lys	Asp	Thr	Lys	Cys	Thr Val	Thr Pro	Leu	Thr	Glu	Gly				
7640					7645			7650							
Ser Leu	Tyr	Val	Phe	Arg	Val	Ala Ala	Glu Asn	Ala	Ile	Gly	Gln				
7655					7660			7665							

Ser	Asp	Tyr	Thr	Glu	Ile	Glu	Asp	Ser	Val	Leu	Ala	Lys	Asp	Thr
7670						7675					7680			
Phe	Thr	Thr	Pro	Gly	Pro	Pro	Tyr	Ala	Leu	Ala	Val	Val	Asp	Val
7685						7690					7695			
Thr	Lys	Arg	His	Val	Asp	Leu	Lys	Trp	Glu	Pro	Pro	Lys	Asn	Asp
7700						7705					7710			
Gly	Gly	Arg	Pro	Ile	Gln	Arg	Tyr	Val	Ile	Glu	Lys	Lys	Glu	Arg
7715						7720					7725			
Leu	Gly	Thr	Arg	Trp	Val	Lys	Ala	Gly	Lys	Thr	Ala	Gly	Pro	Asp
7730						7735					7740			
Cys	Asn	Phe	Arg	Val	Thr	Asp	Val	Ile	Glu	Gly	Thr	Glu	Val	Gln
7745						7750					7755			
Phe	Gln	Val	Arg	Ala	Glu	Asn	Glu	Ala	Gly	Val	Gly	His	Pro	Ser
7760						7765					7770			
Glu	Pro	Thr	Glu	Ile	Leu	Ser	Ile	Glu	Asp	Pro	Thr	Ser	Pro	Pro
7775						7780					7785			
Ser	Pro	Pro	Leu	Asp	Leu	His	Val	Thr	Asp	Ala	Gly	Arg	Lys	His
7790						7795					7800			
Ile	Ala	Ile	Ala	Trp	Lys	Pro	Pro	Glu	Lys	Asn	Gly	Gly	Ser	Pro
7805						7810					7815			
Ile	Ile	Gly	Tyr	His	Val	Glu	Met	Cys	Pro	Val	Gly	Thr	Glu	Lys
7820						7825					7830			
Trp	Met	Arg	Val	Asn	Ser	Arg	Pro	Ile	Lys	Asp	Leu	Lys	Phe	Lys
7835						7840					7845			
Val	Glu	Glu	Gly	Val	Val	Pro	Asp	Lys	Glu	Tyr	Val	Leu	Arg	Val
7850						7855					7860			
Arg	Ala	Val	Asn	Ala	Ile	Gly	Val	Ser	Glu	Pro	Ser	Glu	Ile	Ser
7865						7870					7875			
Glu	Asn	Val	Val	Ala	Lys	Asp	Pro	Asp	Cys	Lys	Pro	Thr	Ile	Asp
7880						7885					7890			

Leu	Glu	Thr	His	Asp	Ile	Ile	Val	Ile	Glu	Gly	Glu	Lys	Leu	Ser
7895						7900					7905			
Ile	Pro	Val	Pro	Phe	Arg	Ala	Val	Pro	Val	Pro	Thr	Val	Ser	Trp
7910						7915					7920			
His	Lys	Asp	Gly	Lys	Glu	Val	Lys	Ala	Ser	Asp	Arg	Leu	Thr	Met
7925						7930					7935			
Lys	Asn	Asp	His	Ile	Ser	Ala	His	Leu	Glu	Val	Pro	Lys	Ser	Val
7940						7945					7950			
Arg	Ala	Asp	Ala	Gly	Ile	Tyr	Thr	Ile	Thr	Leu	Glu	Asn	Lys	Leu
7955						7960					7965			
Gly	Ser	Ala	Thr	Ala	Ser	Ile	Asn	Val	Lys	Val	Ile	Gly	Leu	Pro
7970						7975					7980			
Gly	Pro	Cys	Lys	Asp	Ile	Lys	Ala	Ser	Asp	Ile	Thr	Lys	Ser	Ser
7985						7990					7995			
Cys	Lys	Leu	Thr	Trp	Glu	Pro	Pro	Glu	Phe	Asp	Gly	Gly	Thr	Pro
8000						8005					8010			
Ile	Leu	His	Tyr	Val	Leu	Glu	Arg	Arg	Glu	Ala	Gly	Arg	Arg	Thr
8015						8020					8025			
Tyr	Ile	Pro	Val	Met	Ser	Gly	Glu	Asn	Lys	Leu	Ser	Trp	Thr	Val
8030						8035					8040			
Lys	Asp	Leu	Ile	Pro	Asn	Gly	Glu	Tyr	Phe	Phe	Arg	Val	Lys	Ala
8045						8050					8055			
Val	Asn	Lys	Val	Gly	Gly	Gly	Glu	Tyr	Ile	Glu	Leu	Lys	Asn	Pro
8060						8065					8070			
Val	Ile	Ala	Gln	Asp	Pro	Lys	Gln	Pro	Pro	Asp	Pro	Pro	Val	Asp
8075						8080					8085			
Val	Glu	Val	His	Asn	Pro	Thr	Ala	Glu	Ala	Met	Thr	Ile	Thr	Trp
8090						8095					8100			
Lys	Pro	Pro	Leu	Tyr	Asp	Gly	Gly	Ser	Lys	Ile	Met	Gly	Tyr	Ile

8105		8110		8115
Ile Glu Lys Ile Ala Lys Gly Glu Glu Arg Trp Lys Arg Cys Asn				
8120		8125		8130
Glu His Leu Val Pro Ile Leu Thr Tyr Thr Ala Lys Gly Leu Glu				
8135		8140		8145
Glu Gly Lys Glu Tyr Gln Phe Arg Val Arg Ala Glu Asn Ala Ala				
8150		8155		8160
Gly Ile Ser Glu Pro Ser Arg Ala Thr Pro Pro Thr Lys Ala Val				
8165		8170		8175
Asp Pro Ile Asp Ala Pro Lys Val Ile Leu Arg Thr Ser Leu Glu				
8180		8185		8190
Val Lys Arg Gly Asp Glu Ile Ala Leu Asp Ala Ser Ile Ser Gly				
8195		8200		8205
Ser Pro Tyr Pro Thr Ile Thr Trp Ile Lys Asp Glu Asn Val Ile				
8210		8215		8220
Val Pro Glu Glu Ile Lys Lys Arg Ala Ala Pro Leu Val Arg Arg				
8225		8230		8235
Arg Lys Gly Glu Val Gln Glu Glu Glu Pro Phe Val Leu Pro Leu				
8240		8245		8250
Thr Gln Arg Leu Ser Ile Asp Asn Ser Lys Lys Gly Glu Ser Gln				
8255		8260		8265
Leu Arg Val Arg Asp Ser Leu Arg Pro Asp His Gly Leu Tyr Met				
8270		8275		8280
Ile Lys Val Glu Asn Asp His Gly Ile Ala Lys Ala Pro Cys Thr				
8285		8290		8295
Val Ser Val Leu Asp Thr Pro Gly Pro Pro Ile Asn Phe Val Phe				
8300		8305		8310
Glu Asp Ile Arg Lys Thr Ser Val Leu Cys Lys Trp Glu Pro Pro				
8315		8320		8325

Leu	Asp	Asp	Gly	Gly	Ser	Glu	Ile	Ile	Asn	Tyr	Thr	Leu	Glu	Lys
8330						8335					8340			
Lys	Asp	Lys	Thr	Lys	Pro	Asp	Ser	Glu	Trp	Ile	Val	Val	Thr	Ser
8345						8350					8355			
Thr	Leu	Arg	His	Cys	Lys	Tyr	Ser	Val	Thr	Lys	Leu	Ile	Glu	Gly
8360						8365					8370			
Lys	Glu	Tyr	Leu	Phe	Arg	Val	Arg	Ala	Glu	Asn	Arg	Phe	Gly	Pro
8375						8380					8385			
Gly	Pro	Pro	Cys	Val	Ser	Lys	Pro	Leu	Val	Ala	Lys	Asp	Pro	Phe
8390						8395					8400			
Gly	Pro	Pro	Asp	Ala	Pro	Asp	Lys	Pro	Ile	Val	Glu	Asp	Val	Thr
8405						8410					8415			
Ser	Asn	Ser	Met	Leu	Val	Lys	Trp	Asn	Glu	Pro	Lys	Asp	Asn	Gly
8420						8425					8430			
Ser	Pro	Ile	Leu	Gly	Tyr	Trp	Leu	Glu	Lys	Arg	Glu	Val	Asn	Ser
8435						8440					8445			
Thr	His	Trp	Ser	Arg	Val	Asn	Lys	Ser	Leu	Leu	Asn	Ala	Leu	Lys
8450						8455					8460			
Ala	Asn	Val	Asp	Gly	Leu	Leu	Glu	Gly	Leu	Thr	Tyr	Val	Phe	Arg
8465						8470					8475			
Val	Cys	Ala	Glu	Asn	Ala	Ala	Gly	Pro	Gly	Lys	Phe	Ser	Pro	Pro
8480						8485					8490			
Ser	Asp	Pro	Lys	Thr	Ala	His	Asp	Pro	Ile	Ser	Pro	Pro	Gly	Pro
8495						8500					8505			
Pro	Ile	Pro	Arg	Val	Thr	Asp	Thr	Ser	Ser	Thr	Thr	Ile	Glu	Leu
8510						8515					8520			
Glu	Trp	Glu	Pro	Pro	Ala	Phe	Asn	Gly	Gly	Gly	Glu	Ile	Val	Gly
8525						8530					8535			
Tyr	Phe	Val	Asp	Lys	Gln	Leu	Val	Gly	Thr	Asn	Lys	Trp	Ser	Arg
8540						8545					8550			

Cys	Thr	Glu	Lys	Met	Ile	Lys	Val	Arg	Gln	Tyr	Thr	Val	Lys	Glu
8555						8560					8565			
Ile	Arg	Glu	Gly	Ala	Asp	Tyr	Lys	Leu	Arg	Val	Ser	Ala	Val	Asn
8570						8575					8580			
Ala	Ala	Gly	Glu	Gly	Pro	Pro	Gly	Glu	Thr	Gln	Pro	Val	Thr	Val
8585						8590					8595			
Ala	Glu	Pro	Gln	Glu	Pro	Pro	Ala	Val	Glu	Leu	Asp	Val	Ser	Val
8600						8605					8610			
Lys	Gly	Gly	Ile	Gln	Ile	Met	Ala	Gly	Lys	Thr	Leu	Arg	Ile	Pro
8615						8620					8625			
Ala	Val	Val	Thr	Gly	Arg	Pro	Val	Pro	Thr	Lys	Val	Trp	Thr	Lys
8630						8635					8640			
Glu	Glu	Gly	Glu	Leu	Asp	Lys	Asp	Arg	Val	Val	Ile	Asp	Asn	Val
8645						8650					8655			
Gly	Thr	Lys	Ser	Glu	Leu	Ile	Ile	Lys	Asp	Ala	Leu	Arg	Lys	Asp
8660						8665					8670			
His	Gly	Arg	Tyr	Val	Ile	Thr	Ala	Thr	Asn	Ser	Cys	Gly	Ser	Lys
8675						8680					8685			
Phe	Ala	Ala	Ala	Arg	Val	Glu	Val	Phe	Asp	Val	Pro	Gly	Pro	Val
8690						8695					8700			
Leu	Asp	Leu	Lys	Pro	Val	Val	Thr	Asn	Arg	Lys	Met	Cys	Leu	Leu
8705						8710					8715			
Asn	Trp	Ser	Asp	Pro	Glu	Asp	Asp	Gly	Gly	Ser	Glu	Ile	Thr	Gly
8720						8725					8730			
Phe	Ile	Ile	Glu	Arg	Lys	Asp	Ala	Lys	Met	His	Thr	Trp	Arg	Gln
8735						8740					8745			
Pro	Ile	Glu	Thr	Glu	Arg	Ser	Lys	Cys	Asp	Ile	Thr	Gly	Leu	Leu
8750						8755					8760			
Glu	Gly	Gln	Glu	Tyr	Lys	Phe	Arg	Val	Ile	Ala	Lys	Asn	Lys	Phe

8765		8770		8775
Gly Cys 8780	Gly Pro Pro Val	Glu Ile Gly Pro Ile 8785	Leu Ala Val Asp 8790	
Pro Leu 8795	Gly Pro Pro Thr	Ser Pro Glu Arg Leu 8800	Thr Tyr Thr Glu 8805	
Arg Gln 8810	Arg Ser Thr Ile	Thr Leu Asp Trp Lys 8815	Glu Pro Arg Ser 8820	
Asn Gly 8825	Gly Ser Pro Ile	Gln Gly Tyr Ile Ile 8830	Glu Lys Arg Arg 8835	
His Asp 8840	Lys Pro Asp Phe	Glu Arg Val Asn Lys 8845	Arg Leu Cys Pro 8850	
Thr Thr 8855	Ser Phe Leu Val	Glu Asn Leu Asp Glu 8860	His Gln Met Tyr 8865	
Glu Phe 8870	Arg Val Lys Ala	Val Asn Glu Ile Gly 8875	Glu Ser Glu Pro 8880	
Ser Leu 8885	Pro Leu Asn Val	Val Ile Gln Asp Asp 8890	Glu Val Pro Pro 8895	
Thr Ile 8900	Lys Leu Arg Leu	Ser Val Arg Gly Asp 8905	Thr Ile Lys Val 8910	
Lys Ala 8915	Gly Glu Pro Val	His Ile Pro Ala Asp 8920	Val Thr Gly Leu 8925	
Pro Met 8930	Pro Lys Ile Glu	Trp Ser Lys Asn Glu 8935	Thr Val Ile Glu 8940	
Lys Pro 8945	Thr Asp Ala Leu	Gln Ile Thr Lys Glu 8950	Glu Val Ser Arg 8955	
Ser Glu 8960	Ala Lys Thr Glu	Leu Ser Ile Pro Lys 8965	Ala Val Arg Glu 8970	
Asp Lys 8975	Gly Thr Tyr Thr	Val Thr Ala Ser Asn 8980	Arg Leu Gly Ser 8985	

Val	Phe	Arg	Asn	Val	His	Val	Glu	Val	Tyr	Asp	Arg	Pro	Ser	Pro
8990						8995					9000			
Pro	Arg	Asn	Leu	Ala	Val	Thr	Asp	Ile	Lys	Ala	Glu	Ser	Cys	Tyr
9005						9010					9015			
Leu	Thr	Trp	Asp	Ala	Pro	Leu	Asp	Asn	Gly	Gly	Ser	Glu	Ile	Thr
9020						9025					9030			
His	Tyr	Val	Ile	Asp	Lys	Arg	Asp	Ala	Ser	Arg	Lys	Lys	Ala	Glu
9035						9040					9045			
Trp	Glu	Glu	Val	Thr	Asn	Thr	Ala	Val	Glu	Lys	Arg	Tyr	Gly	Ile
9050						9055					9060			
Trp	Lys	Leu	Ile	Pro	Asn	Gly	Gln	Tyr	Glu	Phe	Arg	Val	Arg	Ala
9065						9070					9075			
Val	Asn	Lys	Tyr	Gly	Ile	Ser	Asp	Glu	Cys	Lys	Ser	Asp	Lys	Val
9080						9085					9090			
Val	Ile	Gln	Asp	Pro	Tyr	Arg	Leu	Pro	Gly	Pro	Pro	Gly	Lys	Pro
9095						9100					9105			
Lys	Val	Leu	Ala	Arg	Thr	Lys	Gly	Ser	Met	Leu	Val	Ser	Trp	Thr
9110						9115					9120			
Pro	Pro	Leu	Asp	Asn	Gly	Gly	Ser	Pro	Ile	Thr	Gly	Tyr	Trp	Leu
9125						9130					9135			
Glu	Lys	Arg	Glu	Glu	Gly	Ser	Pro	Tyr	Trp	Ser	Arg	Val	Ser	Arg
9140						9145					9150			
Ala	Pro	Ile	Thr	Lys	Val	Gly	Leu	Lys	Gly	Val	Glu	Phe	Asn	Val
9155						9160					9165			
Pro	Arg	Leu	Leu	Glu	Gly	Val	Lys	Tyr	Gln	Phe	Arg	Ala	Met	Ala
9170						9175					9180			
Ile	Asn	Ala	Ala	Gly	Ile	Gly	Pro	Pro	Ser	Glu	Pro	Ser	Asp	Pro
9185						9190					9195			
Glu	Val	Ala	Gly	Asp	Pro	Ile	Phe	Pro	Pro	Gly	Pro	Pro	Ser	Cys
9200						9205					9210			

Pro	Glu	Val	Lys	Asp	Lys	Thr	Lys	Ser	Ser	Ile	Ser	Leu	Gly	Trp
9215						9220					9225			
Lys	Pro	Pro	Ala	Lys	Asp	Gly	Gly	Ser	Pro	Ile	Lys	Gly	Tyr	Ile
9230						9235					9240			
Val	Glu	Met	Gln	Glu	Glu	Gly	Thr	Thr	Asp	Trp	Lys	Arg	Val	Asn
9245						9250					9255			
Glu	Pro	Asp	Lys	Leu	Ile	Thr	Thr	Cys	Glu	Cys	Val	Val	Pro	Asn
9260						9265					9270			
Leu	Lys	Glu	Leu	Arg	Lys	Tyr	Arg	Phe	Arg	Val	Lys	Ala	Val	Asn
9275						9280					9285			
Glu	Ala	Gly	Glu	Ser	Glu	Pro	Ser	Asp	Thr	Thr	Gly	Glu	Ile	Pro
9290						9295					9300			
Ala	Thr	Asp	Ile	Gln	Glu	Glu	Pro	Glu	Val	Phe	Ile	Asp	Ile	Gly
9305						9310					9315			
Ala	Gln	Asp	Cys	Leu	Val	Cys	Lys	Ala	Gly	Ser	Gln	Ile	Arg	Ile
9320						9325					9330			
Pro	Ala	Val	Ile	Lys	Gly	Arg	Pro	Thr	Pro	Lys	Ser	Ser	Trp	Glu
9335						9340					9345			
Phe	Asp	Gly	Lys	Ala	Lys	Lys	Ala	Met	Lys	Asp	Gly	Val	His	Asp
9350						9355					9360			
Ile	Pro	Glu	Asp	Ala	Gln	Leu	Glu	Thr	Ala	Glu	Asn	Ser	Ser	Val
9365						9370					9375			
Ile	Ile	Ile	Pro	Glu	Cys	Lys	Arg	Ser	His	Thr	Gly	Lys	Tyr	Ser
9380						9385					9390			
Ile	Thr	Ala	Lys	Asn	Lys	Ala	Gly	Gln	Lys	Thr	Ala	Asn	Cys	Arg
9395						9400					9405			
Val	Lys	Val	Met	Asp	Val	Pro	Gly	Pro	Pro	Lys	Asp	Leu	Lys	Val
9410						9415					9420			
Ser	Asp	Ile	Thr	Arg	Gly	Ser	Cys	Arg	Leu	Ser	Trp	Lys	Met	Pro

9425		9430		9435
Asp Asp 9440	Asp Gly Gly Asp	Arg 9445	Ile Lys Gly Tyr	Val 9450 Ile Glu Lys
Arg Thr 9455	Ile Asp Gly Lys	Ala 9460	Trp Thr Lys Val	Asn 9465 Pro Asp Cys
Gly Ser 9470	Thr Thr Phe Val	Val 9475	Pro Asp Leu Leu	Ser 9480 Glu Gln Gln
Tyr Phe 9485	Phe Arg Val Arg	Ala 9490	Glu Asn Arg Phe	Gly 9495 Ile Gly Pro
Pro Val 9500	Glu Thr Ile Gln	Arg 9505	Thr Thr Ala Arg	Asp 9510 Pro Ile Tyr
Pro Pro 9515	Asp Pro Pro Ile	Lys 9520	Leu Lys Ile Gly	Leu 9525 Ile Thr Lys
Asn Thr 9530	Val His Leu Ser	Trp 9535	Lys Pro Pro Lys	Asn 9540 Asp Gly Gly
Ser Pro 9545	Val Thr His Tyr	Ile 9550	Val Glu Cys Leu	Ala 9555 Trp Asp Pro
Thr Gly 9560	Thr Lys Lys Glu	Ala 9565	Trp Arg Gln Cys	Asn 9570 Lys Arg Asp
Val Glu 9575	Glu Leu Gln Phe	Thr 9580	Val Glu Asp Leu	Val 9585 Glu Gly Gly
Glu Tyr 9590	Glu Phe Arg Val	Lys 9595	Ala Val Asn Ala	Ala 9600 Gly Val Ser
Lys Pro 9605	Ser Ala Thr Val	Gly 9610	Pro Cys Asp Cys	Gln 9615 Arg Pro Asp
Met Pro 9620	Pro Ser Ile Asp	Leu 9625	Lys Glu Phe Met	Glu 9630 Val Glu Glu
Gly Thr 9635	Asn Val Asn Ile	Val 9640	Ala Lys Ile Lys	Gly 9645 Val Pro Phe

Pro	Thr	Leu	Thr	Trp	Phe	Lys	Ala	Pro	Pro	Lys	Lys	Pro	Asp	Asn
9650						9655					9660			
Lys	Glu	Pro	Val	Leu	Tyr	Asp	Thr	His	Val	Asn	Lys	Leu	Val	Val
9665						9670					9675			
Asp	Asp	Thr	Cys	Thr	Leu	Val	Ile	Pro	Gln	Ser	Arg	Arg	Ser	Asp
9680						9685					9690			
Thr	Gly	Leu	Tyr	Thr	Ile	Thr	Ala	Val	Asn	Asn	Leu	Gly	Thr	Ala
9695						9700					9705			
Ser	Lys	Glu	Met	Arg	Leu	Asn	Val	Leu	Gly	Arg	Pro	Gly	Pro	Pro
9710						9715					9720			
Val	Gly	Pro	Ile	Lys	Phe	Glu	Ser	Val	Ser	Ala	Asp	Gln	Met	Thr
9725						9730					9735			
Leu	Ser	Trp	Phe	Pro	Pro	Lys	Asp	Asp	Gly	Gly	Ser	Lys	Ile	Thr
9740						9745					9750			
Asn	Tyr	Val	Ile	Glu	Lys	Arg	Glu	Ala	Asn	Arg	Lys	Thr	Trp	Val
9755						9760					9765			
His	Val	Ser	Ser	Glu	Pro	Lys	Glu	Cys	Thr	Tyr	Thr	Ile	Pro	Lys
9770						9775					9780			
Leu	Leu	Glu	Gly	His	Glu	Tyr	Val	Phe	Arg	Ile	Met	Ala	Gln	Asn
9785						9790					9795			
Lys	Tyr	Gly	Ile	Gly	Glu	Pro	Leu	Asp	Ser	Glu	Pro	Glu	Thr	Ala
9800						9805					9810			
Arg	Asn	Leu	Phe	Ser	Val	Pro	Gly	Ala	Pro	Asp	Lys	Pro	Thr	Val
9815						9820					9825			
Ser	Ser	Val	Thr	Arg	Asn	Ser	Met	Thr	Val	Asn	Trp	Glu	Glu	Pro
9830						9835					9840			
Glu	Tyr	Asp	Gly	Gly	Ser	Pro	Val	Thr	Gly	Tyr	Trp	Leu	Glu	Met
9845						9850					9855			
Lys	Asp	Thr	Thr	Ser	Lys	Arg	Trp	Lys	Arg	Val	Asn	Arg	Asp	Pro
9860						9865					9870			

Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val Thr Gly Leu
 9875 9880 9885

Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala Ile Asn Ala
 9890 9895 9900

Ala Gly Val Gly Pro Ala Ser Leu Pro Ser Asp Pro Ala Thr Ala
 9905 9910 9915

Arg Asp Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro Lys Val Thr
 9920 9925 9930

Asp Trp Thr Lys Ser Ser Ala Asp Leu Glu Trp Ser Pro Pro Leu
 9935 9940 9945

Lys Asp Gly Gly Ser Lys Val Thr Gly Tyr Ile Val Glu Tyr Lys
 9950 9955 9960

Glu Glu Gly Lys Glu Glu Trp Glu Lys Gly Lys Asp Lys Glu Val
 9965 9970 9975

Arg Gly Thr Lys Leu Val Val Thr Gly Leu Lys Glu Gly Ala Phe
 9980 9985 9990

Tyr Lys Phe Arg Val Ser Ala Val Asn Ile Ala Gly Ile Gly Glu
 9995 10000 10005

Pro Gly Glu Val Thr Asp Val Ile Glu Met Lys Asp Arg Leu Val
 10010 10015 10020

Ser Pro Asp Leu Gln Leu Asp Ala Ser Val Arg Asp Arg Ile Val
 10025 10030 10035

Val His Ala Gly Gly Val Ile Arg Ile Ile Ala Tyr Val Ser Gly
 10040 10045 10050

Lys Pro Pro Pro Thr Val Thr Trp Asn Met Asn Glu Arg Thr Leu
 10055 10060 10065

Pro Gln Glu Ala Thr Ile Glu Thr Thr Ala Ile Ser Ser Ser Met
 10070 10075 10080

Val Ile Lys Asn Cys Gln Arg Ser His Gln Gly Val Tyr Ser Leu

10085	10090	10095
Leu Ala 10100	Lys Asn Glu Ala Gly 10105	Glu Arg Lys Lys Thr 10110
Asp Val 10115	Leu Asp Val Pro Gly 10120	Pro Val Gly Thr Pro 10125
His Asn 10130	Leu Thr Asn Glu Ser 10135	Cys Lys Leu Thr Trp 10140
Glu Asp 10145	Asp Gly Gly Ser Pro 10150	Ile Thr Asn Tyr Val 10155
Arg Glu 10160	Ser Asp Arg Arg Ala 10165	Trp Thr Pro Val Thr 10170
Thr Arg 10175	Gln Asn Ala Thr Val 10180	Gln Gly Leu Ile Gln 10185
Tyr Phe 10190	Phe Arg Ile Ala Ala 10195	Glu Asn Ser Ile Gly 10200
Phe Val 10205	Glu Thr Ser Glu Ala 10210	Leu Val Ile Arg Glu 10215
Val Pro 10220	Glu Arg Pro Glu Asp 10225	Leu Glu Val Lys Glu 10230
Asn Thr 10235	Val Thr Leu Thr Trp 10240	Asn Pro Pro Lys Tyr 10245
Ser Glu 10250	Ile Ile Asn Tyr Val 10255	Leu Glu Ser Arg Leu 10260
Glu Lys 10265	Phe His Lys Val Thr 10270	Asn Asp Asn Leu Leu 10275
Tyr Thr 10280	Val Lys Gly Leu Lys 10285	Glu Gly Asp Thr Tyr 10290
Val Ser 10295	Ala Val Asn Ile Val 10300	Gly Gln Gly Lys Pro 10305

Thr Lys 10310	Pro Ile Thr Cys Lys 10315	Asp Glu Leu Ala Pro 10320	Pro Thr Leu
His Leu 10325	Asp Phe Arg Asp Lys 10330	Leu Thr Ile Arg Val 10335	Gly Glu Ala
Phe Ala 10340	Leu Thr Gly Arg Tyr 10345	Ser Gly Lys Pro Lys 10350	Pro Lys Val
Ser Trp 10355	Phe Lys Asp Glu Ala 10360	Asp Val Leu Glu Asp 10365	Asp Arg Thr
His Ile 10370	Lys Thr Thr Pro Ala 10375	Thr Leu Ala Leu Glu 10380	Lys Ile Lys
Ala Lys 10385	Arg Ser Asp Ser Gly 10390	Lys Tyr Cys Val Val 10395	Val Glu Asn
Ser Thr 10400	Gly Ser Arg Lys Gly 10405	Phe Cys Gln Val Asn 10410	Val Val Asp
His Pro 10415	Gly Pro Pro Val Gly 10420	Pro Val Ser Phe Asp 10425	Glu Val Thr
Lys Asp 10430	Tyr Met Val Ile Ser 10435	Trp Lys Pro Pro Leu 10440	Asp Asp Gly
Gly Ser 10445	Lys Ile Thr Asn Tyr 10450	Ile Ile Glu Lys Lys 10455	Glu Val Gly
Lys Asp 10460	Val Trp Met Pro Val 10465	Thr Ser Ala Ser Ala 10470	Lys Thr Thr
Cys Lys 10475	Val Ser Lys Leu Leu 10480	Glu Gly Lys Asp Tyr 10485	Ile Phe Arg
Ile His 10490	Ala Glu Asn Leu Tyr 10495	Gly Ile Ser Asp Pro 10500	Leu Val Ser
Asp Ser 10505	Met Lys Ala Lys Asp 10510	Arg Phe Arg Val Pro 10515	Asp Ala Pro
Asp Gln 10520	Pro Ile Val Thr Glu 10525	Val Thr Lys Asp Ser 10530	Ala Leu Val

Thr	Trp	Asn	Lys	Pro	His	Asp	Gly	Gly	Lys	Pro	Ile	Thr	Asn	Tyr
10535						10540					10545			
Ile	Leu	Glu	Lys	Arg	Glu	Thr	Met	Ser	Lys	Arg	Trp	Ala	Arg	Val
10550						10555					10560			
Thr	Lys	Asp	Pro	Ile	His	Pro	Tyr	Thr	Lys	Phe	Arg	Val	Pro	Asp
10565						10570					10575			
Leu	Leu	Glu	Gly	Cys	Gln	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn
10580						10585					10590			
Glu	Ile	Gly	Ile	Gly	Asp	Pro	Ser	Pro	Pro	Ser	Lys	Pro	Val	Phe
10595						10600					10605			
Ala	Lys	Asp	Pro	Ile	Ala	Lys	Pro	Ser	Pro	Pro	Val	Asn	Pro	Glu
10610						10615					10620			
Ala	Ile	Asp	Thr	Thr	Cys	Asn	Ser	Val	Asp	Leu	Thr	Trp	Gln	Pro
10625						10630					10635			
Pro	Arg	His	Asp	Gly	Gly	Ser	Lys	Ile	Leu	Gly	Tyr	Ile	Val	Glu
10640						10645					10650			
Tyr	Gln	Lys	Val	Gly	Asp	Glu	Glu	Trp	Arg	Arg	Ala	Asn	His	Thr
10655						10660					10665			
Pro	Glu	Ser	Cys	Pro	Glu	Thr	Lys	Tyr	Lys	Val	Thr	Gly	Leu	Arg
10670						10675					10680			
Asp	Gly	Gln	Thr	Tyr	Lys	Phe	Arg	Val	Leu	Ala	Val	Asn	Ala	Ala
10685						10690					10695			
Gly	Glu	Ser	Asp	Pro	Ala	His	Val	Pro	Glu	Pro	Val	Leu	Val	Lys
10700						10705					10710			
Asp	Arg	Leu	Glu	Pro	Pro	Glu	Leu	Ile	Leu	Asp	Ala	Asn	Met	Ala
10715						10720					10725			
Arg	Glu	Gln	His	Ile	Lys	Val	Gly	Asp	Thr	Leu	Arg	Leu	Ser	Ala
10730						10735					10740			
Ile	Ile	Lys	Gly	Val	Pro	Phe	Pro	Lys	Val	Thr	Trp	Lys	Lys	Glu

10745		10750		10755
Asp Arg 10760	Asp Ala Pro Thr	Lys 10765	Ala Arg Ile Asp	Val Thr Pro Val 10770
Gly Ser 10775	Lys Leu Glu Ile	Arg 10780	Asn Ala Ala His	Glu Asp Gly Gly 10785
Ile Tyr 10790	Ser Leu Thr Val	Glu 10795	Asn Pro Ala Gly	Ser Lys Thr Val 10800
Ser Val 10805	Lys Val Leu Val	Leu 10810	Asp Lys Pro Gly	Pro Pro Arg Asp 10815
Leu Glu 10820	Val Ser Glu Ile	Arg 10825	Lys Asp Ser Cys	Tyr Leu Thr Trp 10830
Lys Glu 10835	Pro Leu Asp Asp	Gly 10840	Gly Ser Val Ile	Thr Asn Tyr Val 10845
Val Glu 10850	Arg Arg Asp Val	Ala 10855	Ser Ala Gln Trp	Ser Pro Leu Ser 10860
Ala Thr 10865	Ser Lys Lys Lys	Ser 10870	His Phe Ala Lys	His Leu Asn Glu 10875
Gly Asn 10880	Gln Tyr Leu Phe	Arg 10885	Val Ala Ala Glu	Asn Gln Tyr Gly 10890
Arg Gly 10895	Pro Phe Val Glu	Thr 10900	Pro Lys Pro Ile	Lys Ala Leu Asp 10905
Pro Leu 10910	His Pro Pro Gly	Pro 10915	Pro Lys Asp Leu	His His Val Asp 10920
Val Asp 10925	Lys Thr Glu Val	Ser 10930	Leu Val Trp Asn	Lys Pro Asp Arg 10935
Asp Gly 10940	Gly Ser Pro Ile	Thr 10945	Gly Tyr Leu Val	Glu Tyr Gln Glu 10950
Glu Gly 10955	Thr Gln Asp Trp	Ile 10960	Lys Phe Lys Thr	Val Thr Asn Leu 10965

Glu Cys	Val Val Thr Gly	Leu	Gln Gln Gly Lys Thr	Tyr Arg Phe
10970		10975		10980
Arg Val	Lys Ala Glu Asn Ile	Val Gly Leu Gly	Leu	Pro Asp Thr
10985		10990		10995
Thr Ile	Pro Ile Glu Cys Gln	Glu Lys Leu Val	Pro	Pro Ser Val
11000		11005		11010
Glu Leu	Asp Val Lys Leu Ile	Glu Gly Leu Val	Val	Lys Ala Gly
11015		11020		11025
Thr Thr	Val Arg Phe Pro Ala	Ile Ile Arg Gly	Val	Pro Val Pro
11030		11035		11040
Thr Ala	Lys Trp Thr Thr Asp	Gly Ser Glu Ile	Lys	Thr Asp Glu
11045		11050		11055
His Tyr	Thr Val Glu Thr Asp	Asn Phe Ser Ser	Val	Leu Thr Ile
11060		11065		11070
Lys Asn	Cys Leu Arg Arg Asp	Thr Gly Glu Tyr	Gln	Ile Thr Val
11075		11080		11085
Ser Asn	Ala Ala Gly Ser Lys	Thr Val Ala Val	His	Leu Thr Val
11090		11095		11100
Leu Asp	Val Pro Gly Pro Pro	Thr Gly Pro Ile	Asn	Ile Leu Asp
11105		11110		11115
Val Thr	Pro Glu His Met Thr	Ile Ser Trp Gln	Pro	Pro Lys Asp
11120		11125		11130
Asp Gly	Gly Ser Pro Val Ile	Asn Tyr Ile Val	Glu	Lys Gln Asp
11135		11140		11145
Thr Arg	Lys Asp Thr Trp Gly	Val Val Ser Ser	Gly	Ser Ser Lys
11150		11155		11160
Thr Lys	Leu Lys Ile Pro His	Leu Gln Lys Gly	Cys	Glu Tyr Val
11165		11170		11175
Phe Arg	Val Arg Ala Glu Asn	Lys Ile Gly Val	Gly	Pro Pro Leu
11180		11185		11190

Asp Ser 11195	Thr Pro Thr Val 11200	Ala Lys His Lys Phe Ser 11205	Pro Pro Ser
Pro Pro 11210	Gly Lys Pro Val 11215	Thr Asp Ile Thr Glu 11220	Asn Ala Ala
Thr Val 11225	Ser Trp Thr Leu Pro 11230	Lys Ser Asp Gly Gly 11235	Ser Pro Ile
Thr Gly 11240	Tyr Tyr Met Glu Arg 11245	Arg Glu Val Thr Gly 11250	Lys Trp Val
Arg Val 11255	Asn Lys Thr Pro Ile 11260	Ala Asp Leu Lys Phe 11265	Arg Val Thr
Gly Leu 11270	Tyr Glu Gly Asn Thr 11275	Tyr Glu Phe Arg Val 11280	Phe Ala Glu
Asn Leu 11285	Ala Gly Leu Ser Lys 11290	Pro Ser Pro Ser Ser 11295	Asp Pro Ile
Lys Ala 11300	Cys Arg Pro Ile Lys 11305	Pro Pro Gly Pro Pro 11310	Ile Asn Pro
Lys Leu 11315	Lys Asp Lys Ser Arg 11320	Glu Thr Ala Asp Leu 11325	Val Trp Thr
Lys Pro 11330	Leu Ser Asp Gly Gly 11335	Ser Pro Ile Leu Gly 11340	Tyr Val Val
Glu Cys 11345	Gln Lys Pro Gly Thr 11350	Ala Gln Trp Asn Arg 11355	Ile Asn Lys
Asp Glu 11360	Leu Ile Arg Gln Cys 11365	Ala Phe Arg Val Pro 11370	Gly Leu Ile
Glu Gly 11375	Asn Glu Tyr Arg Phe 11380	Arg Ile Lys Ala Ala 11385	Asn Ile Val
Gly Glu 11390	Gly Glu Pro Arg Glu 11395	Leu Ala Glu Ser Val 11400	Ile Ala Lys
Asp Ile	Leu His Pro Pro Glu	Val Glu Leu Asp Val	Thr Cys Arg

11405		11410		11415
Asp Val 11420	Ile Thr Val Arg	Val 11425	Gly Gln Thr Ile	Arg Ile Leu Ala 11430
Arg Val 11435	Lys Gly Arg Pro	Glu 11440	Pro Asp Ile Thr	Trp Thr Lys Glu 11445
Gly Lys 11450	Val Leu Val Arg	Glu 11455	Lys Arg Val Asp	Leu Ile Gln Asp 11460
Leu Pro 11465	Arg Val Glu Leu	Gln 11470	Ile Lys Glu Ala	Val Arg Ala Asp 11475
His Gly 11480	Lys Tyr Ile Ile	Ser 11485	Ala Lys Asn Ser	Ser Gly His Ala 11490
Gln Gly 11495	Ser Ala Ile Val	Asn 11500	Val Leu Asp Arg	Pro Gly Pro Cys 11505
Gln Asn 11510	Leu Lys Val Thr	Asn 11515	Val Thr Lys Glu	Asn Cys Thr Ile 11520
Ser Trp 11525	Glu Asn Pro Leu	Asp 11530	Asn Gly Gly Ser	Glu Ile Thr Asn 11535
Phe Ile 11540	Val Glu Tyr Arg	Lys 11545	Pro Asn Gln Lys	Gly Trp Ser Ile 11550
Val Ala 11555	Ser Asp Val Thr	Lys 11560	Arg Leu Ile Lys	Ala Asn Leu Leu 11565
Ala Asn 11570	Asn Glu Tyr Tyr	Phe 11575	Arg Val Cys Ala	Glu Asn Lys Val 11580
Gly Val 11585	Gly Pro Thr Ile	Glu 11590	Thr Lys Thr Pro	Ile Leu Ala Ile 11595
Asn Pro 11600	Ile Asp Arg Pro	Gly 11605	Glu Pro Glu Asn	Leu His Ile Ala 11610
Asp Lys 11615	Gly Lys Thr Phe	Val 11620	Tyr Leu Lys Trp	Arg Arg Pro Asp 11625

Tyr	Asp	Gly	Gly	Ser	Pro	Asn	Leu	Ser	Tyr	His	Val	Glu	Arg	Arg
11630						11635					11640			
Leu	Lys	Gly	Ser	Asp	Asp	Trp	Glu	Arg	Val	His	Lys	Gly	Ser	Ile
11645						11650					11655			
Lys	Glu	Thr	His	Tyr	Met	Val	Asp	Arg	Cys	Val	Glu	Asn	Gln	Ile
11660						11665					11670			
Tyr	Glu	Phe	Arg	Val	Gln	Thr	Lys	Asn	Glu	Gly	Gly	Glu	Ser	Asp
11675						11680					11685			
Trp	Val	Lys	Thr	Glu	Glu	Val	Val	Val	Lys	Glu	Asp	Leu	Gln	Lys
11690						11695					11700			
Pro	Val	Leu	Asp	Leu	Lys	Leu	Ser	Gly	Val	Leu	Thr	Val	Lys	Ala
11705						11710					11715			
Gly	Asp	Thr	Ile	Arg	Leu	Glu	Ala	Gly	Val	Arg	Gly	Lys	Pro	Phe
11720						11725					11730			
Pro	Glu	Val	Ala	Trp	Thr	Lys	Asp	Lys	Asp	Ala	Thr	Asp	Leu	Thr
11735						11740					11745			
Arg	Ser	Pro	Arg	Val	Lys	Ile	Asp	Thr	Arg	Ala	Asp	Ser	Ser	Lys
11750						11755					11760			
Phe	Ser	Leu	Thr	Lys	Ala	Lys	Arg	Ser	Asp	Gly	Gly	Lys	Tyr	Val
11765						11770					11775			
Val	Thr	Ala	Thr	Asn	Thr	Ala	Gly	Ser	Phe	Val	Ala	Tyr	Ala	Thr
11780						11785					11790			
Val	Asn	Val	Leu	Asp	Lys	Pro	Gly	Pro	Val	Arg	Asn	Leu	Lys	Ile
11795						11800					11805			
Val	Asp	Val	Ser	Ser	Asp	Arg	Cys	Thr	Val	Cys	Trp	Asp	Pro	Pro
11810						11815					11820			
Glu	Asp	Asp	Gly	Gly	Cys	Glu	Ile	Gln	Asn	Tyr	Ile	Leu	Glu	Lys
11825						11830					11835			
Cys	Glu	Thr	Lys	Arg	Met	Val	Trp	Ser	Thr	Tyr	Ser	Ala	Thr	Val
11840						11845					11850			

Leu Thr 11855	Pro Gly Thr Thr Val 11860	Thr Arg Leu Ile Glu 11865	Gly Asn Glu
Tyr Ile 11870	Phe Arg Val Arg Ala 11875	Glu Asn Lys Ile Gly 11880	Thr Gly Pro
Pro Thr 11885	Glu Ser Lys Pro Val 11890	Ile Ala Lys Thr Lys 11895	Tyr Asp Lys
Pro Gly 11900	Arg Pro Asp Pro Pro 11905	Glu Val Thr Lys Val 11910	Ser Lys Glu
Glu Met 11915	Thr Val Val Trp Asn 11920	Pro Pro Glu Tyr Asp 11925	Gly Gly Lys
Ser Ile 11930	Thr Gly Tyr Phe Leu 11935	Glu Lys Lys Glu Lys 11940	His Ser Thr
Arg Trp 11945	Val Pro Val Asn Lys 11950	Ser Ala Ile Pro Glu 11955	Arg Arg Met
Lys Val 11960	Gln Asn Leu Leu Pro 11965	Asp His Glu Tyr Gln 11970	Phe Arg Val
Lys Ala 11975	Glu Asn Glu Ile Gly 11980	Ile Gly Glu Pro Ser 11985	Leu Pro Ser
Arg Pro 11990	Val Val Ala Lys Asp 11995	Pro Ile Glu Pro Pro 12000	Gly Pro Pro
Thr Asn 12005	Phe Arg Val Val Asp 12010	Thr Thr Lys His Ser 12015	Ile Thr Leu
Gly Trp 12020	Gly Lys Pro Val Tyr 12025	Asp Gly Gly Ala Pro 12030	Ile Ile Gly
Tyr Val 12035	Val Glu Met Arg Pro 12040	Lys Ile Ala Asp Ala 12045	Ser Pro Asp
Glu Gly 12050	Trp Lys Arg Cys Asn 12055	Ala Ala Ala Gln Leu 12060	Val Arg Lys
Glu Phe	Thr Val Thr Ser Leu	Asp Glu Asn Gln Glu	Tyr Glu Phe

12065		12070		12075
Arg Val 12080	Cys Ala Gln Asn Gln	Val Gly Ile Gly Arg	Pro Ala Glu	
Leu Lys 12095	Glu Ala Ile Lys Pro	Lys Glu Ile Leu Glu	Pro Pro Glu	
Ile Asp 12110	Leu Asp Ala Ser Met	Arg Lys Leu Val Ile	Val Arg Ala	
Gly Cys 12125	Pro Ile Arg Leu Phe	Ala Ile Val Arg Gly	Arg Pro Ala	
Pro Lys 12140	Val Thr Trp Arg Lys	Val Gly Ile Asp Asn	Val Val Arg	
Lys Gly 12155	Gln Val Asp Leu Val	Asp Thr Met Ala Phe	Leu Val Ile	
Pro Asn 12170	Ser Thr Arg Asp Asp	Ser Gly Lys Tyr Ser	Leu Thr Leu	
Val Asn 12185	Pro Ala Gly Glu Lys	Ala Val Phe Val Asn	Val Arg Val	
Leu Asp 12200	Thr Pro Gly Pro Val	Ser Asp Leu Lys Val	Ser Asp Val	
Thr Lys 12215	Thr Ser Cys His Val	Ser Trp Ala Pro Pro	Glu Asn Asp	
Gly Gly 12230	Ser Gln Val Thr His	Tyr Ile Val Glu Lys	Arg Glu Ala	
Asp Arg 12245	Lys Thr Trp Ser Thr	Val Thr Pro Glu Val	Lys Lys Thr	
Ser Phe 12260	His Val Thr Asn Leu	Val Pro Gly Asn Glu	Tyr Tyr Phe	
Arg Val 12275	Thr Ala Val Asn Glu	Tyr Gly Pro Gly Val	Pro Thr Asp	

Val 12290	Pro	Lys	Pro	Val	Leu	Ala 12295	Ser	Asp	Pro	Leu	Ser 12300	Glu	Pro	Asp
Pro 12305	Pro	Arg	Lys	Leu	Glu	Ala 12310	Thr	Glu	Met	Thr	Lys 12315	Asn	Ser	Ala
Thr 12320	Leu	Ala	Trp	Leu	Pro	Pro 12325	Leu	Arg	Asp	Gly	Gly 12330	Ala	Lys	Ile
Asp 12335	Gly	Tyr	Ile	Ile	Ser	Tyr 12340	Arg	Glu	Glu	Glu	Gln 12345	Pro	Ala	Asp
Arg 12350	Trp	Thr	Glu	Tyr	Ser	Val 12355	Val	Lys	Asp	Leu	Ser 12360	Leu	Val	Val
Thr 12365	Gly	Leu	Lys	Glu	Gly	Lys 12370	Lys	Tyr	Lys	Phe	Arg 12375	Val	Ala	Ala
Arg 12380	Asn	Ala	Val	Gly	Val	Ser 12385	Leu	Pro	Arg	Glu	Ala 12390	Glu	Gly	Val
Tyr 12395	Glu	Ala	Lys	Glu	Gln	Leu 12400	Leu	Pro	Pro	Lys	Ile 12405	Leu	Met	Pro
Glu 12410	Gln	Ile	Thr	Ile	Lys	Ala 12415	Gly	Lys	Lys	Leu	Arg 12420	Ile	Glu	Ala
His 12425	Val	Tyr	Gly	Lys	Pro	His 12430	Pro	Thr	Cys	Lys	Trp 12435	Lys	Lys	Gly
Glu 12440	Asp	Glu	Val	Val	Thr	Ser 12445	Ser	His	Leu	Ala	Val 12450	His	Lys	Ala
Asp 12455	Ser	Ser	Ser	Ile	Leu	Ile 12460	Ile	Lys	Asp	Val	Thr 12465	Arg	Lys	Asp
Ser 12470	Gly	Tyr	Tyr	Ser	Leu	Thr 12475	Ala	Glu	Asn	Ser	Ser 12480	Gly	Thr	Asp
Thr 12485	Gln	Lys	Ile	Lys	Val	Val 12490	Val	Met	Asp	Ala	Pro 12495	Gly	Pro	Pro
Gln 12500	Pro	Pro	Phe	Asp	Ile	Ser 12505	Asp	Ile	Asp	Ala	Asp 12510	Ala	Cys	Ser

Leu Ser 12515	Trp His Ile Pro	Leu 12520	Glu Asp Gly Gly Ser	Asn Ile Thr 12525
Asn Tyr 12530	Ile Val Glu Lys	Cys 12535	Asp Val Ser Arg Gly	Asp Trp Val 12540
Thr Ala 12545	Leu Ala Ser Val	Thr 12550	Lys Thr Ser Cys Arg	Val Gly Lys 12555
Leu Ile 12560	Pro Gly Gln Glu	Tyr 12565	Ile Phe Arg Val Arg	Ala Glu Asn 12570
Arg Phe 12575	Gly Ile Ser Glu	Pro 12580	Leu Thr Ser Pro Lys	Met Val Ala 12585
Gln Phe 12590	Pro Phe Gly Val	Pro 12595	Ser Glu Pro Lys Asn	Ala Arg Val 12600
Thr Lys 12605	Val Asn Lys Asp	Cys 12610	Ile Phe Val Ala Trp	Asp Arg Pro 12615
Asp Ser 12620	Asp Gly Gly Ser	Pro 12625	Ile Ile Gly Tyr Leu	Ile Glu Arg 12630
Lys Glu 12635	Arg Asn Ser Leu	Leu 12640	Trp Val Lys Ala Asn	Asp Thr Leu 12645
Val Arg 12650	Ser Thr Glu Tyr	Pro 12655	Cys Ala Gly Leu Val	Glu Gly Leu 12660
Glu Tyr 12665	Ser Phe Arg Ile	Tyr 12670	Ala Leu Asn Lys Ala	Gly Ser Ser 12675
Pro Pro 12680	Ser Lys Pro Thr	Glu 12685	Tyr Val Thr Ala Arg	Met Pro Val 12690
Asp Pro 12695	Pro Gly Lys Pro	Glu 12700	Val Ile Asp Val Thr	Lys Ser Thr 12705
Val Ser 12710	Leu Ile Trp Ala	Arg 12715	Pro Lys His Asp Gly	Gly Ser Lys 12720
Ile Ile	Gly Tyr Phe Val Glu	Ala Cys Lys Leu Pro	Gly Asp Lys	

12725		12730		12735
Trp Val 12740	Arg Cys Asn Thr	Ala 12745	Pro His Gln Ile	Pro 12750
				Gln Glu Glu
Tyr Thr 12755	Ala Thr Gly Leu	Glu 12760	Glu Lys Ala Gln	Tyr 12765
				Gln Phe Arg
Ala Ile 12770	Ala Arg Thr Ala	Val 12775	Asn Ile Ser Pro	Pro 12780
				Ser Glu Pro
Ser Asp 12785	Pro Val Thr Ile	Leu 12790	Ala Glu Asn Val	Pro 12795
				Pro Arg Ile
Asp Leu 12800	Ser Val Ala Met	Lys 12805	Ser Leu Leu Thr	Val 12810
				Lys Ala Gly
Thr Asn 12815	Val Cys Leu Asp	Ala 12820	Thr Val Phe Gly	Lys 12825
				Pro Met Pro
Thr Val 12830	Ser Trp Lys Lys	Asp 12835	Gly Thr Leu Leu	Lys 12840
				Pro Ala Glu
Gly Ile 12845	Lys Met Ala Met	Gln 12850	Arg Asn Leu Cys	Thr 12855
				Leu Glu Leu
Phe Ser 12860	Val Asn Arg Lys	Asp 12865	Ser Gly Asp Tyr	Thr 12870
				Ile Thr Ala
Glu Asn 12875	Ser Ser Gly Ser	Lys 12880	Ser Ala Thr Ile	Lys 12885
				Leu Lys Val
Leu Asp 12890	Lys Pro Gly Pro	Pro 12895	Ala Ser Val Lys	Ile 12900
				Asn Lys Met
Tyr Ser 12905	Asp Arg Ala Met	Leu 12910	Ser Trp Glu Pro	Pro 12915
				Leu Glu Asp
Gly Gly 12920	Ser Glu Ile Thr	Asn 12925	Tyr Ile Val Asp	Lys 12930
				Arg Glu Thr
Ser Arg 12935	Pro Asn Trp Ala	Gln 12940	Val Ser Ala Thr	Val 12945
				Pro Ile Thr

Ser Cys 12950	Ser Val Glu Lys Leu 12955	Ile Glu Gly His Glu 12960	Tyr Gln Phe
Arg Ile 12965	Cys Ala Glu Asn Lys 12970	Tyr Gly Val Gly Asp 12975	Pro Val Phe
Thr Glu 12980	Pro Ala Ile Ala Lys 12985	Asn Pro Tyr Asp Pro 12990	Pro Gly Arg
Cys Asp 12995	Pro Pro Val Ile Ser 13000	Asn Ile Thr Lys Asp 13005	His Met Thr
Val Ser 13010	Trp Lys Pro Pro Ala 13015	Asp Asp Gly Gly Ser 13020	Pro Ile Thr
Gly Tyr 13025	Leu Leu Glu Lys Arg 13030	Glu Thr Gln Ala Val 13035	Asn Trp Thr
Lys Val 13040	Asn Arg Lys Pro Ile 13045	Ile Glu Arg Thr Leu 13050	Lys Ala Thr
Gly Leu 13055	Gln Glu Gly Thr Glu 13060	Tyr Glu Phe Arg Val 13065	Thr Ala Ile
Asn Lys 13070	Ala Gly Pro Gly Lys 13075	Pro Ser Asp Ala Ser 13080	Lys Ala Ala
Tyr Ala 13085	Arg Asp Pro Gln Tyr 13090	Pro Pro Ala Pro Pro 13095	Ala Phe Pro
Lys Val 13100	Tyr Asp Thr Thr Arg 13105	Ser Ser Val Ser Leu 13110	Ser Trp Gly
Lys Pro 13115	Ala Tyr Asp Gly Gly 13120	Ser Pro Ile Ile Gly 13125	Tyr Leu Val
Glu Val 13130	Lys Arg Ala Asp Ser 13135	Asp Asn Trp Val Arg 13140	Cys Asn Leu
Pro Gln 13145	Asn Leu Gln Lys Thr 13150	Arg Phe Glu Val Thr 13155	Gly Leu Met
Glu Asp 13160	Thr Gln Tyr Gln Phe 13165	Arg Val Tyr Ala Val 13170	Asn Lys Ile

Gly Tyr	Ser Asp Pro Ser	Asp	Val Pro Asp Lys	His	Tyr Pro Lys
13175		13180		13185	
Asp Ile	Leu Ile Pro Pro	Glu	Gly Glu His Asp	Ala	Asp Leu Arg
13190		13195		13200	
Lys Thr	Leu Ile Leu Arg	Ala	Gly Val Thr Met	Arg	Leu Tyr Val
13205		13210		13215	
Pro Val	Lys Gly Arg Pro	Pro	Pro Lys Ile Thr	Trp	Ser Lys Pro
13220		13225		13230	
Asn Val	Asn Leu Arg Asp	Arg	Ile Gly Leu Asp	Ile	Lys Ser Thr
13235		13240		13245	
Asp Phe	Asp Thr Phe Leu	Arg	Cys Glu Asn Val	Asn	Lys Tyr Asp
13250		13255		13260	
Ala Gly	Lys Tyr Ile Leu	Thr	Leu Glu Asn Ser	Cys	Gly Lys Lys
13265		13270		13275	
Glu Tyr	Thr Ile Val Val	Lys	Val Leu Asp Thr	Pro	Gly Pro Pro
13280		13285		13290	
Ile Asn	Val Thr Val Lys	Glu	Ile Ser Lys Asp	Ser	Ala Tyr Val
13295		13300		13305	
Thr Trp	Glu Pro Pro Ile	Ile	Asp Gly Gly Ser	Pro	Ile Ile Asn
13310		13315		13320	
Tyr Val	Val Gln Lys Arg	Asp	Ala Glu Arg Lys	Ser	Trp Ser Thr
13325		13330		13335	
Val Thr	Thr Glu Cys Ser	Lys	Thr Ser Phe Arg	Val	Pro Asn Leu
13340		13345		13350	
Glu Glu	Gly Lys Ser Tyr	Phe	Phe Arg Val Phe	Ala	Glu Asn Glu
13355		13360		13365	
Tyr Gly	Ile Gly Asp Pro	Gly	Glu Thr Arg Asp	Ala	Val Lys Ala
13370		13375		13380	
Ser Gln	Thr Pro Gly Pro	Val	Val Asp Leu Lys	Val	Arg Ser Val

13385		13390		13395
Ser Lys 13400	Ser Ser Cys Ser	Ile 13405	Gly Trp Lys Lys	Pro His Ser Asp 13410
Gly Gly 13415	Ser Arg Ile Ile	Gly 13420	Tyr Val Val Asp	Phe Leu Thr Glu 13425
Glu Asn 13430	Lys Trp Gln Arg	Val 13435	Met Lys Ser Leu	Ser Leu Gln Tyr 13440
Ser Ala 13445	Lys Asp Leu Thr	Glu 13450	Gly Lys Glu Tyr	Thr Phe Arg Val 13455
Ser Ala 13460	Glu Asn Glu Asn	Gly 13465	Glu Gly Thr Pro	Ser Glu Ile Thr 13470
Val Val 13475	Ala Arg Asp Asp	Val 13480	Val Ala Pro Asp	Leu Asp Leu Lys 13485
Gly Leu 13490	Pro Asp Leu Cys	Tyr 13495	Leu Ala Lys Glu	Asn Ser Asn Phe 13500
Arg Leu 13505	Lys Ile Pro Ile	Lys 13510	Gly Lys Pro Ala	Pro Ser Val Ser 13515
Trp Lys 13520	Lys Gly Glu Asp	Pro 13525	Leu Ala Thr Asp	Thr Arg Val Ser 13530
Val Glu 13535	Ser Ser Ala Val	Asn 13540	Thr Thr Leu Ile	Val Tyr Asp Cys 13545
Gln Lys 13550	Ser Asp Ala Gly	Lys 13555	Tyr Thr Ile Thr	Leu Lys Asn Val 13560
Ala Gly 13565	Thr Lys Glu Gly	Thr 13570	Ile Ser Ile Lys	Val Val Gly Lys 13575
Pro Gly 13580	Ile Pro Thr Gly	Pro 13585	Ile Lys Phe Asp	Glu Val Thr Ala 13590
Glu Ala 13595	Met Thr Leu Lys	Trp 13600	Ala Pro Pro Lys	Asp Asp Gly Gly 13605

Ser Glu 13610	Ile Thr Asn Tyr	Ile 13615	Leu Glu Lys Arg Asp 13620	Ser Val Asn
Asn Lys 13625	Trp Val Thr Cys	Ala 13630	Ser Ala Val Gln Lys 13635	Thr Thr Phe
Arg Val 13640	Thr Arg Leu His	Glu 13645	Gly Met Glu Tyr Thr 13650	Phe Arg Val
Ser Ala 13655	Glu Asn Lys Tyr	Gly 13660	Val Gly Glu Gly Leu 13665	Lys Ser Glu
Pro Ile 13670	Val Ala Arg His	Pro 13675	Phe Asp Val Pro Asp 13680	Ala Pro Pro
Pro Pro 13685	Asn Ile Val Asp	Val 13690	Arg His Asp Ser Val 13695	Ser Leu Thr
Trp Thr 13700	Asp Pro Lys Lys	Thr 13705	Gly Gly Ser Pro Ile 13710	Thr Gly Tyr
His Leu 13715	Glu Phe Lys Glu	Arg 13720	Asn Ser Leu Leu Trp 13725	Lys Arg Ala
Asn Lys 13730	Thr Pro Ile Arg	Met 13735	Arg Asp Phe Lys Val 13740	Thr Gly Leu
Thr Glu 13745	Gly Leu Glu Tyr	Glu 13750	Phe Arg Val Met Ala 13755	Ile Asn Leu
Ala Gly 13760	Val Gly Lys Pro	Ser 13765	Leu Pro Ser Glu Pro 13770	Val Val Ala
Leu Asp 13775	Pro Ile Asp Pro	Pro 13780	Gly Lys Pro Glu Val 13785	Ile Asn Ile
Thr Arg 13790	Asn Ser Val Thr	Leu 13795	Ile Trp Thr Glu Pro 13800	Lys Tyr Asp
Gly Gly 13805	His Lys Leu Thr	Gly 13810	Tyr Ile Val Glu Lys 13815	Arg Asp Leu
Pro Ser 13820	Lys Ser Trp Met	Lys 13825	Ala Asn His Val Asn 13830	Val Pro Glu

Cys Ala 13835	Phe Thr Val Thr Asp 13840	Leu Val Glu Gly Gly 13845	Lys Tyr Glu
Phe Arg 13850	Ile Arg Ala Lys Asn 13855	Thr Ala Gly Ala Ile 13860	Ser Ala Pro
Ser Glu 13865	Ser Thr Glu Thr Ile 13870	Ile Cys Lys Asp Glu 13875	Tyr Glu Ala
Pro Thr 13880	Ile Val Leu Asp Pro 13885	Thr Ile Lys Asp Gly 13890	Leu Thr Ile
Lys Ala 13895	Gly Asp Thr Ile Val 13900	Leu Asn Ala Ile Ser 13905	Ile Leu Gly
Lys Pro 13910	Leu Pro Lys Ser Ser 13915	Trp Ser Lys Ala Gly 13920	Lys Asp Ile
Arg Pro 13925	Ser Asp Ile Thr Gln 13930	Ile Thr Ser Thr Pro 13935	Thr Ser Ser
Met Leu 13940	Thr Ile Lys Tyr Ala 13945	Thr Arg Lys Asp Ala 13950	Gly Glu Tyr
Thr Ile 13955	Thr Ala Thr Asn Pro 13960	Phe Gly Thr Lys Val 13965	Glu His Val
Lys Val 13970	Thr Val Leu Asp Val 13975	Pro Gly Pro Pro Gly 13980	Pro Val Glu
Ile Ser 13985	Asn Val Ser Ala Glu 13990	Lys Ala Thr Leu Thr 13995	Trp Thr Pro
Pro Leu 14000	Glu Asp Gly Gly Ser 14005	Pro Ile Lys Ser Tyr 14010	Ile Leu Glu
Lys Arg 14015	Glu Thr Ser Arg Leu 14020	Leu Trp Thr Val Val 14025	Ser Glu Asp
Ile Gln 14030	Ser Cys Arg His Val 14035	Ala Thr Lys Leu Ile 14040	Gln Gly Asn
Glu Tyr	Ile Phe Arg Val Ser	Ala Val Asn His Tyr	Gly Lys Gly

14045		14050		14055
Glu Pro Val Gln Ser Glu Pro Val Lys Met Val Asp Arg Phe Gly				
14060		14065		14070
Pro Pro Gly Pro Pro Glu Lys Pro Glu Val Ser Asn Val Thr Lys				
14075		14080		14085
Asn Thr Ala Thr Val Ser Trp Lys Arg Pro Val Asp Asp Gly Gly				
14090		14095		14100
Ser Glu Ile Thr Gly Tyr His Val Glu Arg Arg Glu Lys Lys Ser				
14105		14110		14115
Leu Arg Trp Val Arg Ala Ile Lys Thr Pro Val Ser Asp Leu Arg				
14120		14125		14130
Cys Lys Val Thr Gly Leu Gln Glu Gly Ser Thr Tyr Glu Phe Arg				
14135		14140		14145
Val Ser Ala Glu Asn Arg Ala Gly Ile Gly Pro Pro Ser Glu Ala				
14150		14155		14160
Ser Asp Ser Val Leu Met Lys Asp Ala Ala Tyr Pro Pro Gly Pro				
14165		14170		14175
Pro Ser Asn Pro His Val Thr Asp Thr Thr Lys Lys Ser Ala Ser				
14180		14185		14190
Leu Ala Trp Gly Lys Pro His Tyr Asp Gly Gly Leu Glu Ile Thr				
14195		14200		14205
Gly Tyr Val Val Glu His Gln Lys Val Gly Asp Glu Ala Trp Ile				
14210		14215		14220
Lys Asp Thr Thr Gly Thr Ala Leu Arg Ile Thr Gln Phe Val Val				
14225		14230		14235
Pro Asp Leu Gln Thr Lys Glu Lys Tyr Asn Phe Arg Ile Ser Ala				
14240		14245		14250
Ile Asn Asp Ala Gly Val Gly Glu Pro Ala Val Ile Pro Asp Val				
14255		14260		14265

Glu Ile	Val Glu Arg Glu Met	Ala Pro Asp Phe Glu	Leu Asp Ala
14270	14275	14280	
Glu Leu	Arg Arg Thr Leu Val	Val Arg Ala Gly Leu	Ser Ile Arg
14285	14290	14295	
Ile Phe	Val Pro Ile Lys Gly	Arg Pro Ala Pro Glu	Val Thr Trp
14300	14305	14310	
Thr Lys	Asp Asn Ile Asn Leu	Lys Asn Arg Ala Asn	Ile Glu Asn
14315	14320	14325	
Thr Glu	Ser Phe Thr Leu Leu	Ile Ile Pro Glu Cys	Asn Arg Tyr
14330	14335	14340	
Asp Thr	Gly Lys Phe Val Met	Thr Ile Glu Asn Pro	Ala Gly Lys
14345	14350	14355	
Lys Ser	Gly Phe Val Asn Val	Arg Val Leu Asp Thr	Pro Gly Pro
14360	14365	14370	
Val Leu	Asn Leu Arg Pro Thr	Asp Ile Thr Lys Asp	Ser Val Thr
14375	14380	14385	
Leu His	Trp Asp Leu Pro Leu	Ile Asp Gly Gly Ser	Arg Ile Thr
14390	14395	14400	
Asn Tyr	Ile Val Glu Lys Arg	Glu Ala Thr Arg Lys	Ser Tyr Ser
14405	14410	14415	
Thr Ala	Thr Thr Lys Cys His	Lys Cys Thr Tyr Lys	Val Thr Gly
14420	14425	14430	
Leu Ser	Glu Gly Cys Glu Tyr	Phe Phe Arg Val Met	Ala Glu Asn
14435	14440	14445	
Glu Tyr	Gly Ile Gly Glu Pro	Thr Glu Thr Thr Glu	Pro Val Lys
14450	14455	14460	
Ala Ser	Glu Ala Pro Ser Pro	Pro Asp Ser Leu Asn	Ile Met Asp
14465	14470	14475	
Ile Thr	Lys Ser Thr Val Ser	Leu Ala Trp Pro Lys	Pro Lys His
14480	14485	14490	

Asp Gly 14495	Gly Ser Lys Ile Thr 14500	Gly Tyr Val Ile Glu 14505	Ala Gln Arg
Lys Gly 14510	Ser Asp Gln Trp Thr 14515	His Ile Thr Thr Val 14520	Lys Gly Leu
Glu Cys 14525	Val Val Arg Asn Leu 14530	Thr Glu Gly Glu Glu 14535	Tyr Thr Phe
Gln Val 14540	Met Ala Val Asn Ser 14545	Ala Gly Arg Ser Ala 14550	Pro Arg Glu
Ser Arg 14555	Pro Val Ile Val Lys 14560	Glu Gln Thr Met Leu 14565	Pro Glu Leu
Asp Leu 14570	Arg Gly Ile Tyr Gln 14575	Lys Leu Val Ile Ala 14580	Lys Ala Gly
Asp Asn 14585	Ile Lys Val Glu Ile 14590	Pro Val Leu Gly Arg 14595	Pro Lys Pro
Thr Val 14600	Thr Trp Lys Lys Gly 14605	Asp Gln Ile Leu Lys 14610	Gln Thr Gln
Arg Val 14615	Asn Phe Glu Thr Thr 14620	Ala Thr Ser Thr Ile 14625	Leu Asn Ile
Asn Glu 14630	Cys Val Arg Ser Asp 14635	Ser Gly Pro Tyr Pro 14640	Leu Thr Ala
Arg Asn 14645	Ile Val Gly Glu Val 14650	Gly Asp Val Ile Thr 14655	Ile Gln Val
His Asp 14660	Ile Pro Gly Pro Pro 14665	Thr Gly Pro Ile Lys 14670	Phe Asp Glu
Val Ser 14675	Ser Asp Phe Val Thr 14680	Phe Ser Trp Asp Pro 14685	Pro Glu Asn
Asp Gly 14690	Gly Val Pro Ile Ser 14695	Asn Tyr Val Val Glu 14700	Met Arg Gln
Thr Asp	Ser Thr Thr Trp Val	Glu Leu Ala Thr Thr	Val Ile Arg

14705		14710		14715
Thr Thr 14720	Tyr Lys Ala Thr	Arg 14725	Leu Thr Thr Gly Leu 14730	Glu Tyr Gln
Phe Arg 14735	Val Lys Ala Gln	Asn 14740	Arg Tyr Gly Val Gly 14745	Pro Gly Ile
Thr Ser 14750	Ala Trp Ile Val	Ala 14755	Asn Tyr Pro Phe Lys 14760	Val Pro Gly
Pro Pro 14765	Gly Thr Pro Gln	Val 14770	Thr Ala Val Thr Lys 14775	Asp Ser Met
Thr Ile 14780	Ser Trp His Glu	Pro 14785	Leu Ser Asp Gly Gly 14790	Ser Pro Ile
Leu Gly 14795	Tyr His Val Glu	Arg 14800	Lys Glu Arg Asn Gly 14805	Ile Leu Trp
Gln Thr 14810	Val Ser Lys Ala	Leu 14815	Val Pro Gly Asn Ile 14820	Phe Lys Ser
Ser Gly 14825	Leu Thr Asp Gly	Ile 14830	Ala Tyr Glu Phe Arg 14835	Val Ile Ala
Glu Asn 14840	Met Ala Gly Lys	Ser 14845	Lys Pro Ser Lys Pro 14850	Ser Glu Pro
Met Leu 14855	Ala Leu Asp Pro	Ile 14860	Asp Pro Pro Gly Lys 14865	Pro Val Pro
Leu Asn 14870	Ile Thr Arg His	Thr 14875	Val Thr Leu Lys Trp 14880	Ala Lys Pro
Glu Tyr 14885	Thr Gly Gly Phe	Lys 14890	Ile Thr Ser Tyr Ile 14895	Val Glu Lys
Arg Asp 14900	Leu Pro Asn Gly	Arg 14905	Trp Leu Lys Ala Asn 14910	Phe Ser Asn
Ile Leu 14915	Glu Asn Glu Phe	Thr 14920	Val Ser Gly Leu Thr 14925	Glu Asp Ala

Ala Tyr 14930	Glu Phe Arg Val 14935	Ile 14935	Ala Lys Asn Ala 14940	Ala 14940	Gly Ala Ile
Ser Pro 14945	Pro Ser Glu Pro 14950	Ser 14950	Asp Ala Ile Thr 14955	Cys 14955	Arg Asp Asp
Val Glu 14960	Ala Pro Lys Ile 14965	Lys 14965	Val Asp Val Lys 14970	Phe 14970	Lys Asp Thr
Val Ile 14975	Leu Lys Ala Gly 14980	Glu 14980	Ala Phe Arg Leu 14985	Glu 14985	Ala Asp Val
Ser Gly 14990	Arg Pro Pro Pro 14995	Thr 14995	Met Glu Trp Ser 15000	Lys 15000	Asp Gly Lys
Glu Leu 15005	Glu Gly Thr Ala 15010	Lys 15010	Leu Glu Ile Lys 15015	Ile 15015	Ala Asp Phe
Ser Thr 15020	Asn Leu Val Asn 15025	Lys 15025	Asp Ser Thr Arg 15030	Arg 15030	Asp Ser Gly
Ala Tyr 15035	Thr Leu Thr Ala 15040	Thr 15040	Asn Pro Gly Gly 15045	Phe 15045	Ala Lys His
Ile Phe 15050	Asn Val Lys Val 15055	Leu 15055	Asp Arg Pro Gly 15060	Pro 15060	Pro Glu Gly
Pro Leu 15065	Ala Val Thr Glu 15070	Val 15070	Thr Ser Glu Lys 15075	Cys 15075	Val Leu Ser
Trp Phe 15080	Pro Pro Leu Asp 15085	Asp 15085	Gly Gly Ala Lys 15090	Ile 15090	Asp His Tyr
Ile Val 15095	Gln Lys Arg Glu 15100	Thr 15100	Ser Arg Leu Ala 15105	Trp 15105	Thr Asn Val
Ala Ser 15110	Glu Val Gln Val 15115	Thr 15115	Lys Leu Lys Val 15120	Thr 15120	Lys Leu Leu
Lys Gly 15125	Asn Glu Tyr Ile 15130	Phe 15130	Arg Val Met Ala 15135	Val 15135	Asn Lys Tyr
Gly Val 15140	Gly Glu Pro Leu 15145	Glu 15145	Ser Glu Pro Val 15150	Leu 15150	Ala Val Asn

Pro Tyr 15155	Gly Pro Pro Asp Pro 15160	Pro Lys Asn Pro Glu 15165	Val Thr Thr
Ile Thr 15170	Lys Asp Ser Met Val 15175	Val Cys Trp Gly His 15180	Pro Asp Ser
Asp Gly 15185	Gly Ser Glu Ile Ile 15190	Asn Tyr Ile Val Glu 15195	Arg Arg Asp
Lys Ala 15200	Gly Gln Arg Trp Ile 15205	Lys Cys Asn Lys Lys 15210	Thr Leu Thr
Asp Leu 15215	Arg Tyr Lys Val Ser 15220	Gly Leu Thr Glu Gly 15225	His Glu Tyr
Glu Phe 15230	Arg Ile Met Ala Glu 15235	Asn Ala Ala Gly Ile 15240	Ser Ala Pro
Ser Pro 15245	Thr Ser Pro Phe Tyr 15250	Lys Ala Cys Asp Thr 15255	Val Phe Lys
Pro Gly 15260	Pro Pro Gly Asn Pro 15265	Arg Val Leu Asp Thr 15270	Ser Arg Ser
Ser Ile 15275	Ser Ile Ala Trp Asn 15280	Lys Pro Ile Tyr Asp 15285	Gly Gly Ser
Glu Ile 15290	Thr Gly Tyr Met Val 15295	Glu Ile Ala Leu Pro 15300	Glu Glu Asp
Glu Trp 15305	Gln Ile Val Thr Pro 15310	Pro Ala Gly Leu Lys 15315	Ala Thr Ser
Tyr Thr 15320	Ile Thr Gly Leu Thr 15325	Glu Asn Gln Glu Tyr 15330	Lys Ile Arg
Ile Tyr 15335	Ala Met Asn Ser Glu 15340	Gly Leu Gly Glu Pro 15345	Ala Leu Val
Pro Gly 15350	Thr Pro Lys Ala Glu 15355	Asp Arg Met Leu Pro 15360	Pro Glu Ile
Glu Leu	Asp Ala Asp Leu Arg	Lys Val Val Thr Ile	Arg Ala Cys

15365		15370		15375
Cys Thr 15380	Leu Arg Leu Phe Val 15385	Pro Ile Lys Gly Arg 15390	Pro Asp Pro	
Glu Val 15395	Lys Trp Ala Arg Asp 15400	His Gly Glu Ser Leu 15405	Asp Lys Ala	
Ser Ile 15410	Glu Ser Ala Ser Ser 15415	Tyr Thr Leu Leu Ile 15420	Val Gly Asn	
Val Asn 15425	Arg Phe Asp Ser Gly 15430	Lys Tyr Ile Leu Thr 15435	Val Glu Asn	
Ser Ser 15440	Gly Ser Lys Ser Ala 15445	Phe Val Asn Val Arg 15450	Val Leu Asp	
Thr Pro 15455	Gly Pro Pro Gln Asp 15460	Leu Lys Val Lys Glu 15465	Val Thr Lys	
Thr Ser 15470	Val Thr Leu Thr Trp 15475	Asp Pro Pro Leu Leu 15480	Asp Gly Gly	
Ser Lys 15485	Ile Lys Asn Tyr Ile 15490	Val Glu Lys Arg Glu 15495	Ser Thr Arg	
Lys Ala 15500	Tyr Ser Thr Val Ala 15505	Thr Asn Cys His Lys 15510	Thr Ser Trp	
Lys Val 15515	Asp Gln Leu Gln Glu 15520	Gly Cys Ser Tyr Tyr 15525	Phe Arg Val	
Leu Ala 15530	Glu Asn Glu Tyr Gly 15535	Ile Gly Leu Pro Ala 15540	Glu Thr Ala	
Glu Ser 15545	Val Lys Ala Ser Glu 15550	Arg Pro Leu Pro Pro 15555	Gly Lys Ile	
Thr Leu 15560	Met Asp Val Thr Arg 15565	Asn Ser Val Ser Leu 15570	Ser Trp Glu	
Lys Pro 15575	Glu His Asp Gly Gly 15580	Ser Arg Ile Leu Gly 15585	Tyr Ile Val	

Glu Met 15590	Gln Thr Lys Gly Ser 15595	Asp Lys Trp Ala Thr 15600	Cys Ala Thr
Val Lys 15605	Val Thr Glu Ala Thr 15610	Ile Thr Gly Leu Ile 15615	Gln Gly Glu
Glu Tyr 15620	Ser Phe Arg Val Ser 15625	Ala Gln Asn Glu Lys 15630	Gly Ile Ser
Asp Pro 15635	Arg Gln Leu Ser Val 15640	Pro Val Ile Ala Lys 15645	Asp Leu Val
Ile Pro 15650	Pro Ala Phe Lys Leu 15655	Leu Phe Asn Thr Phe 15660	Thr Val Leu
Ala Gly 15665	Glu Asp Leu Lys Val 15670	Asp Val Pro Phe Ile 15675	Gly Arg Pro
Thr Pro 15680	Ala Val Thr Trp His 15685	Lys Asp Asn Val Pro 15690	Leu Lys Gln
Thr Thr 15695	Arg Val Asn Ala Glu 15700	Ser Thr Glu Asn Asn 15705	Ser Leu Leu
Thr Ile 15710	Lys Asp Ala Cys Arg 15715	Glu Asp Val Gly His 15720	Tyr Val Val
Lys Leu 15725	Thr Asn Ser Ala Gly 15730	Glu Ala Ile Glu Thr 15735	Leu Asn Val
Ile Val 15740	Leu Asp Lys Pro Gly 15745	Pro Pro Thr Gly Pro 15750	Val Lys Met
Asp Glu 15755	Val Thr Ala Asp Ser 15760	Ile Thr Leu Ser Trp 15765	Gly Pro Pro
Lys Tyr 15770	Asp Gly Gly Ser Ser 15775	Ile Asn Asn Tyr Ile 15780	Val Glu Lys
Arg Asp 15785	Thr Ser Thr Thr Thr 15790	Trp Gln Ile Val Ser 15795	Ala Thr Val
Ala Arg 15800	Thr Thr Ile Lys Ala 15805	Cys Arg Leu Lys Thr 15810	Gly Cys Glu

Tyr	Gln	Phe	Arg	Ile	Ala	Ala	Glu	Asn	Arg	Tyr	Gly	Lys	Ser	Thr
15815						15820					15825			
Tyr	Leu	Asn	Ser	Glu	Pro	Thr	Val	Ala	Gln	Tyr	Pro	Phe	Lys	Val
15830						15835					15840			
Pro	Gly	Pro	Pro	Gly	Thr	Pro	Val	Val	Thr	Leu	Ser	Ser	Arg	Asp
15845						15850					15855			
Ser	Met	Glu	Val	Gln	Trp	Asn	Glu	Pro	Ile	Ser	Asp	Gly	Gly	Ser
15860						15865					15870			
Arg	Val	Ile	Gly	Tyr	His	Leu	Glu	Arg	Lys	Glu	Arg	Asn	Ser	Ile
15875						15880					15885			
Leu	Trp	Val	Lys	Leu	Asn	Lys	Thr	Pro	Ile	Pro	Gln	Thr	Lys	Phe
15890						15895					15900			
Lys	Thr	Thr	Gly	Leu	Glu	Glu	Gly	Val	Glu	Tyr	Glu	Phe	Arg	Val
15905						15910					15915			
Ser	Ala	Glu	Asn	Ile	Val	Gly	Ile	Gly	Lys	Pro	Ser	Lys	Val	Ser
15920						15925					15930			
Glu	Cys	Tyr	Val	Ala	Arg	Asp	Pro	Cys	Asp	Pro	Pro	Gly	Arg	Pro
15935						15940					15945			
Glu	Ala	Ile	Ile	Val	Thr	Arg	Asn	Ser	Val	Thr	Leu	Gln	Trp	Lys
15950						15955					15960			
Lys	Pro	Thr	Tyr	Asp	Gly	Gly	Ser	Lys	Ile	Thr	Gly	Tyr	Ile	Val
15965						15970					15975			
Glu	Lys	Lys	Glu	Leu	Pro	Glu	Gly	Arg	Trp	Met	Lys	Ala	Ser	Phe
15980						15985					15990			
Thr	Asn	Ile	Ile	Asp	Thr	His	Phe	Glu	Val	Thr	Gly	Leu	Val	Glu
15995						16000					16005			
Asp	His	Arg	Tyr	Glu	Phe	Arg	Val	Ile	Ala	Arg	Asn	Ala	Ala	Gly
16010						16015					16020			
Val	Phe	Ser	Glu	Pro	Ser	Glu	Ser	Thr	Gly	Ala	Ile	Thr	Ala	Arg

16025	16030	16035
Asp Glu Val Asp Pro Pro Arg 16040 16045	Ile Ser Met Asp Pro 16050	Lys Tyr Lys
Asp Thr Ile Val Val His Ala 16055 16060	Gly Glu Ser Phe Lys 16065	Val Asp Ala
Asp Ile Tyr Gly Lys Pro Ile 16070 16075	Pro Thr Ile Gln Trp 16080	Ile Lys Gly
Asp Gln Glu Leu Ser Asn Thr 16085 16090	Ala Arg Leu Glu Ile 16095	Lys Ser Thr
Asp Phe Ala Thr Ser Leu Ser 16100 16105	Val Lys Asp Ala Val 16110	Arg Val Asp
Ser Gly Asn Tyr Ile Leu Lys 16115 16120	Ala Lys Asn Val Ala 16125	Gly Glu Arg
Ser Val Thr Val Asn Val Lys 16130 16135	Val Leu Asp Arg Pro 16140	Gly Pro Pro
Glu Gly Pro Val Val Ile Ser 16145 16150	Gly Val Thr Ala Glu 16155	Lys Cys Thr
Leu Ala Trp Lys Pro Pro Leu 16160 16165	Gln Asp Gly Gly Ser 16170	Asp Ile Ile
Asn Tyr Ile Val Glu Arg Arg 16175 16180	Glu Thr Ser Arg Leu 16185	Val Trp Thr
Val Val Asp Ala Asn Val Gln 16190 16195	Thr Leu Ser Cys Lys 16200	Val Thr Lys
Leu Leu Glu Gly Asn Glu Tyr 16205 16210	Thr Phe Arg Ile Met 16215	Ala Val Asn
Lys Tyr Gly Val Gly Glu Pro 16220 16225	Leu Glu Ser Glu Pro 16230	Val Val Ala
Lys Asn Pro Phe Val Val Pro 16235 16240	Asp Ala Pro Lys Ala 16245	Pro Glu Val

Thr	Thr	Val	Thr	Lys	Asp	Ser	Met	Ile	Val	Val	Trp	Glu	Arg	Pro
16250						16255					16260			
Ala	Ser	Asp	Gly	Gly	Ser	Glu	Ile	Leu	Gly	Tyr	Val	Leu	Glu	Lys
16265						16270					16275			
Arg	Asp	Lys	Glu	Gly	Ile	Arg	Trp	Thr	Arg	Cys	His	Lys	Arg	Leu
16280						16285					16290			
Ile	Gly	Glu	Leu	Arg	Leu	Arg	Val	Thr	Gly	Leu	Ile	Glu	Asn	His
16295						16300					16305			
Asp	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Ala	Ala	Gly	Leu	Ser
16310						16315					16320			
Glu	Pro	Ser	Pro	Pro	Ser	Ala	Tyr	Gln	Lys	Ala	Cys	Asp	Pro	Ile
16325						16330					16335			
Tyr	Lys	Pro	Gly	Pro	Pro	Asn	Asn	Pro	Lys	Val	Ile	Asp	Ile	Thr
16340						16345					16350			
Arg	Ser	Ser	Val	Phe	Leu	Ser	Trp	Ser	Lys	Pro	Ile	Tyr	Asp	Gly
16355						16360					16365			
Gly	Cys	Glu	Ile	Gln	Gly	Tyr	Ile	Val	Glu	Lys	Cys	Asp	Val	Asn
16370						16375					16380			
Val	Gly	Glu	Trp	Thr	Met	Cys	Thr	Pro	Pro	Thr	Gly	Ile	Asn	Lys
16385						16390					16395			
Thr	Asn	Ile	Glu	Val	Glu	Lys	Leu	Leu	Glu	Lys	His	Glu	Tyr	Asn
16400						16405					16410			
Phe	Arg	Ile	Cys	Ala	Ile	Asn	Lys	Ala	Gly	Val	Gly	Glu	His	Ala
16415						16420					16425			
Asp	Val	Pro	Gly	Pro	Ile	Ile	Val	Glu	Glu	Lys	Leu	Glu	Ala	Pro
16430						16435					16440			
Asp	Ile	Asp	Leu	Asp	Leu	Glu	Leu	Arg	Lys	Ile	Ile	Asn	Ile	Arg
16445						16450					16455			
Ala	Gly	Gly	Ser	Leu	Arg	Leu	Phe	Val	Pro	Ile	Lys	Gly	Arg	Pro
16460						16465					16470			

Thr	Pro	Glu	Val	Lys	Trp	Gly	Lys	Val	Asp	Gly	Glu	Ile	Arg	Asp
16475						16480					16485			
Ala	Ala	Ile	Ile	Asp	Val	Thr	Ser	Ser	Phe	Thr	Ser	Leu	Val	Leu
16490						16495					16500			
Asp	Asn	Val	Asn	Arg	Tyr	Asp	Ser	Gly	Lys	Tyr	Thr	Leu	Thr	Leu
16505						16510					16515			
Glu	Asn	Ser	Ser	Gly	Thr	Lys	Ser	Ala	Phe	Val	Thr	Val	Arg	Val
16520						16525					16530			
Leu	Asp	Thr	Pro	Ser	Pro	Pro	Val	Asn	Leu	Lys	Val	Thr	Glu	Ile
16535						16540					16545			
Thr	Lys	Asp	Ser	Val	Ser	Ile	Thr	Trp	Glu	Pro	Pro	Leu	Leu	Asp
16550						16555					16560			
Gly	Gly	Ser	Lys	Ile	Lys	Asn	Tyr	Ile	Val	Glu	Lys	Arg	Glu	Ala
16565						16570					16575			
Thr	Arg	Lys	Ser	Tyr	Ala	Ala	Val	Val	Thr	Asn	Cys	His	Lys	Asn
16580						16585					16590			
Ser	Trp	Lys	Ile	Asp	Gln	Leu	Gln	Glu	Gly	Cys	Ser	Tyr	Tyr	Phe
16595						16600					16605			
Arg	Val	Thr	Ala	Glu	Asn	Glu	Tyr	Gly	Ile	Gly	Leu	Pro	Ala	Gln
16610						16615					16620			
Thr	Ala	Asp	Pro	Ile	Lys	Val	Ala	Glu	Val	Pro	Gln	Pro	Pro	Gly
16625						16630					16635			
Lys	Ile	Thr	Val	Asp	Asp	Val	Thr	Arg	Asn	Ser	Val	Ser	Leu	Ser
16640						16645					16650			
Trp	Thr	Lys	Pro	Glu	His	Asp	Gly	Gly	Ser	Lys	Ile	Ile	Gln	Tyr
16655						16660					16665			
Ile	Val	Glu	Met	Gln	Ala	Lys	His	Ser	Glu	Lys	Trp	Ser	Glu	Cys
16670						16675					16680			
Ala	Arg	Val	Lys	Ser	Leu	Gln	Ala	Val	Ile	Thr	Asn	Leu	Thr	Gln

16685		16690		16695	
Gly Glu	Glu Tyr Leu Phe Arg	Val Val Ala Val Asn	Glu Lys Gly		
16700	16705	16710			
Arg Ser	Asp Pro Arg Ser Leu	Ala Val Pro Ile Val	Ala Lys Asp		
16715	16720	16725			
Leu Val	Ile Glu Pro Asp Val	Lys Pro Ala Phe Ser	Ser Tyr Ser		
16730	16735	16740			
Val Gln	Val Gly Gln Asp Leu	Lys Ile Glu Val Pro	Ile Ser Gly		
16745	16750	16755			
Arg Pro	Lys Pro Thr Ile Thr	Trp Thr Lys Asp Gly	Leu Pro Leu		
16760	16765	16770			
Lys Gln	Thr Thr Arg Ile Asn	Val Thr Asp Ser Leu	Asp Leu Thr		
16775	16780	16785			
Thr Leu	Ser Ile Lys Glu Thr	His Lys Asp Asp Gly	Gly Gln Tyr		
16790	16795	16800			
Gly Ile	Thr Val Ala Asn Val	Val Gly Gln Lys Thr	Ala Ser Ile		
16805	16810	16815			
Glu Ile	Val Thr Leu Asp Lys	Pro Asp Pro Pro Lys	Gly Pro Val		
16820	16825	16830			
Lys Phe	Asp Asp Val Ser Ala	Glu Ser Ile Thr Leu	Ser Trp Asn		
16835	16840	16845			
Pro Pro	Leu Tyr Thr Gly Gly	Cys Gln Ile Thr Asn	Tyr Ile Val		
16850	16855	16860			
Gln Lys	Arg Asp Thr Thr Thr	Thr Val Trp Asp Val	Val Ser Ala		
16865	16870	16875			
Thr Val	Ala Arg Thr Thr Leu	Lys Val Thr Lys Leu	Lys Thr Gly		
16880	16885	16890			
Thr Glu	Tyr Gln Phe Arg Ile	Phe Ala Glu Asn Arg	Tyr Gly Gln		
16895	16900	16905			

Ser Phe	Ala Leu Glu Ser Asp	Pro Ile Val Ala Gln	Tyr Pro Tyr
16910	16915	16920	
Lys Glu	Pro Gly Pro Pro Gly	Thr Pro Phe Ala Thr	Ala Ile Ser
16925	16930	16935	
Lys Asp	Ser Met Val Ile Gln	Trp His Glu Pro Val	Asn Asn Gly
16940	16945	16950	
Gly Ser	Pro Val Ile Gly Tyr	His Leu Glu Arg Lys	Glu Arg Asn
16955	16960	16965	
Ser Ile	Leu Trp Thr Lys Val	Asn Lys Thr Ile Ile	His Asp Thr
16970	16975	16980	
Gln Phe	Lys Ala Gln Asn Leu	Glu Glu Gly Ile Glu	Tyr Glu Phe
16985	16990	16995	
Arg Val	Tyr Ala Glu Asn Ile	Val Gly Val Gly Lys	Ala Ser Lys
17000	17005	17010	
Asn Ser	Glu Cys Tyr Val Ala	Arg Asp Pro Cys Asp	Pro Pro Gly
17015	17020	17025	
Thr Pro	Glu Pro Ile Met Val	Lys Arg Asn Glu Ile	Thr Leu Gln
17030	17035	17040	
Trp Thr	Lys Pro Val Tyr Asp	Gly Gly Ser Met Ile	Thr Gly Tyr
17045	17050	17055	
Ile Val	Glu Lys Arg Asp Leu	Pro Asp Gly Arg Trp	Met Lys Ala
17060	17065	17070	
Ser Phe	Thr Asn Val Ile Glu	Thr Gln Phe Thr Val	Ser Gly Leu
17075	17080	17085	
Thr Glu	Asp Gln Arg Tyr Glu	Phe Arg Val Ile Ala	Lys Asn Ala
17090	17095	17100	
Ala Gly	Ala Ile Ser Lys Pro	Ser Asp Ser Thr Gly	Pro Ile Thr
17105	17110	17115	
Ala Lys	Asp Glu Val Glu Leu	Pro Arg Ile Ser Met	Asp Pro Lys
17120	17125	17130	

Phe Arg 17135	Asp Thr Ile Val Val 17140	Asn Ala Gly Glu Thr 17145	Phe Arg Leu
Glu Ala 17150	Asp Val His Gly Lys 17155	Pro Leu Pro Thr Ile 17160	Glu Trp Leu
Arg Gly 17165	Asp Lys Glu Ile Glu 17170	Glu Ser Ala Arg Cys 17175	Glu Ile Lys
Asn Thr 17180	Asp Phe Lys Ala Leu 17185	Leu Ile Val Lys Asp 17190	Ala Ile Arg
Ile Asp 17195	Gly Gly Gln Tyr Ile 17200	Leu Arg Ala Ser Asn 17205	Val Ala Gly
Ser Lys 17210	Ser Phe Pro Val Asn 17215	Val Lys Val Leu Asp 17220	Arg Pro Gly
Pro Pro 17225	Glu Gly Pro Val Gln 17230	Val Thr Gly Val Thr 17235	Ser Glu Lys
Cys Ser 17240	Leu Thr Trp Ser Pro 17245	Pro Leu Gln Asp Gly 17250	Gly Ser Asp
Ile Ser 17255	His Tyr Val Val Glu 17260	Lys Arg Glu Thr Ser 17265	Arg Leu Ala
Trp Thr 17270	Val Val Ala Ser Glu 17275	Val Val Thr Asn Ser 17280	Leu Lys Val
Thr Lys 17285	Leu Leu Glu Gly Asn 17290	Glu Tyr Val Phe Arg 17295	Ile Met Ala
Val Asn 17300	Lys Tyr Gly Val Gly 17305	Glu Pro Leu Glu Ser 17310	Ala Pro Val
Leu Met 17315	Lys Asn Pro Phe Val 17320	Leu Pro Gly Pro Pro 17325	Lys Ser Leu
Glu Val 17330	Thr Asn Ile Ala Lys 17335	Asp Ser Met Thr Val 17340	Cys Trp Asn
Arg Pro	Asp Ser Asp Gly Gly	Ser Glu Ile Ile Gly	Tyr Ile Val

17345		17350		17355
Glu Lys 17360	Arg Asp Arg Ser	Gly 17365	Ile Arg Trp Ile	Lys Cys Asn Lys 17370
Arg Arg 17375	Ile Thr Asp Leu	Arg 17380	Leu Arg Val Thr	Gly Leu Thr Glu 17385
Asp His 17390	Glu Tyr Glu Phe	Arg 17395	Val Ser Ala Glu	Asn Ala Ala Gly 17400
Val Gly 17405	Glu Pro Ser Pro	Ala 17410	Thr Val Tyr Tyr	Lys Ala Cys Asp 17415
Pro Val 17420	Phe Lys Pro Gly	Pro 17425	Pro Thr Asn Ala	His Ile Val Asp 17430
Thr Thr 17435	Lys Asn Ser Ile	Thr 17440	Leu Ala Trp Gly	Lys Pro Ile Tyr 17445
Asp Gly 17450	Gly Ser Glu Ile	Leu 17455	Gly Tyr Val Val	Glu Ile Cys Lys 17460
Ala Asp 17465	Glu Glu Glu Trp	Gln 17470	Ile Val Thr Pro	Gln Thr Gly Leu 17475
Arg Val 17480	Thr Arg Phe Glu	Ile 17485	Ser Lys Leu Thr	Glu His Gln Glu 17490
Tyr Lys 17495	Ile Arg Val Cys	Ala 17500	Leu Asn Lys Val	Gly Leu Gly Glu 17505
Ala Thr 17510	Ser Val Pro Gly	Thr 17515	Val Lys Pro Glu	Asp Lys Leu Glu 17520
Ala Pro 17525	Glu Leu Asp Leu	Asp 17530	Ser Glu Leu Arg	Lys Gly Ile Val 17535
Val Arg 17540	Ala Gly Gly Ser	Ala 17545	Arg Ile His Ile	Pro Phe Lys Gly 17550
Arg Pro 17555	Met Pro Glu Ile	Thr 17560	Trp Ser Arg Glu	Glu Gly Glu Phe 17565

Thr Asp 17570	Lys Val Gln Ile Glu 17575	Lys Gly Val Asn Tyr 17580	Thr Gln Leu
Ser Ile 17585	Asp Asn Cys Asp Arg 17590	Asn Asp Ala Gly Lys 17595	Tyr Ile Leu
Lys Leu 17600	Glu Asn Ser Ser Gly 17605	Ser Lys Ser Ala Phe 17610	Val Thr Val
Lys Val 17615	Leu Asp Thr Pro Gly 17620	Pro Pro Gln Asn Leu 17625	Ala Val Lys
Glu Val 17630	Arg Lys Asp Ser Ala 17635	Phe Leu Val Trp Glu 17640	Pro Pro Ile
Ile Asp 17645	Gly Gly Ala Lys Val 17650	Lys Asn Tyr Val Ile 17655	Asp Lys Arg
Glu Ser 17660	Thr Arg Lys Ala Tyr 17665	Ala Asn Val Ser Ser 17670	Lys Cys Ser
Lys Thr 17675	Ser Phe Lys Val Glu 17680	Asn Leu Thr Glu Gly 17685	Ala Ile Tyr
Tyr Phe 17690	Arg Val Met Ala Glu 17695	Asn Glu Phe Gly Val 17700	Gly Val Pro
Val Glu 17705	Thr Val Asp Ala Val 17710	Lys Ala Ala Glu Pro 17715	Pro Ser Pro
Pro Gly 17720	Lys Val Thr Leu Thr 17725	Asp Val Ser Gln Thr 17730	Ser Ala Ser
Leu Met 17735	Trp Glu Lys Pro Glu 17740	His Asp Gly Gly Ser 17745	Arg Val Leu
Gly Tyr 17750	Val Val Glu Met Gln 17755	Pro Lys Gly Thr Glu 17760	Lys Trp Ser
Ile Val 17765	Ala Glu Ser Lys Val 17770	Cys Asn Ala Val Val 17775	Thr Gly Leu
Ser Ser 17780	Gly Gln Glu Tyr Gln 17785	Phe Arg Val Lys Ala 17790	Tyr Asn Glu

Lys Gly 17795	Lys Ser Asp Pro Arg 17800	Val Leu Gly Val Pro 17805	Val Ile Ala
Lys Asp 17810	Leu Thr Ile Gln Pro 17815	Ser Leu Lys Leu Pro 17820	Phe Asn Thr
Tyr Ser 17825	Ile Gln Ala Gly Glu 17830	Asp Leu Lys Ile Glu 17835	Ile Pro Val
Ile Gly 17840	Arg Pro Arg Pro Asn 17845	Ile Ser Trp Val Lys 17850	Asp Gly Glu
Pro Leu 17855	Lys Gln Thr Thr Arg 17860	Val Asn Val Glu Glu 17865	Thr Ala Thr
Ser Thr 17870	Val Leu His Ile Lys 17875	Glu Gly Asn Lys Asp 17880	Asp Phe Gly
Lys Tyr 17885	Thr Val Thr Ala Thr 17890	Asn Ser Ala Gly Thr 17895	Ala Thr Glu
Asn Leu 17900	Ser Val Ile Val Leu 17905	Glu Lys Pro Gly Pro 17910	Pro Val Gly
Pro Val 17915	Arg Phe Asp Glu Val 17920	Ser Ala Asp Phe Val 17925	Val Ile Ser
Trp Glu 17930	Pro Pro Ala Tyr Thr 17935	Gly Gly Cys Gln Ile 17940	Ser Asn Tyr
Ile Val 17945	Glu Lys Arg Asp Thr 17950	Thr Thr Thr Thr Trp 17955	His Met Val
Ser Ala 17960	Thr Val Ala Arg Thr 17965	Thr Ile Lys Ile Thr 17970	Lys Leu Lys
Thr Gly 17975	Thr Glu Tyr Gln Phe 17980	Arg Ile Phe Ala Glu 17985	Asn Arg Tyr
Gly Lys 17990	Ser Ala Pro Leu Asp 17995	Ser Lys Ala Val Ile 18000	Val Gln Tyr
Pro Phe	Lys Glu Pro Gly Pro	Pro Gly Thr Pro Phe	Val Thr Ser

18005		18010		18015
Ile Ser 18020	Lys Asp Gln Met	Leu 18025	Val Gln Trp His	Glu 18030
				Pro Val Asn
Asp Gly 18035	Gly Thr Lys Ile	Ile 18040	Gly Tyr His Leu	Glu 18045
				Gln Lys Glu
Lys Asn 18050	Ser Ile Leu Trp	Val 18055	Lys Leu Asn Lys	Thr 18060
				Pro Ile Gln
Asp Thr 18065	Lys Phe Lys Thr	Thr 18070	Gly Leu Asp Glu	Gly 18075
				Leu Glu Tyr
Glu Phe 18080	Lys Val Ser Ala	Glu 18085	Asn Ile Val Gly	Ile 18090
				Gly Lys Pro
Ser Lys 18095	Val Ser Glu Cys	Phe 18100	Val Ala Arg Asp	Pro 18105
				Cys Asp Pro
Pro Gly 18110	Arg Pro Glu Ala	Ile 18115	Val Ile Thr Arg	Asn 18120
				Asn Val Thr
Leu Lys 18125	Trp Lys Lys Pro	Ala 18130	Tyr Asp Gly Gly	Ser 18135
				Lys Ile Thr
Gly Tyr 18140	Ile Val Glu Lys	Lys 18145	Asp Leu Pro Asp	Gly 18150
				Arg Trp Met
Lys Ala 18155	Ser Phe Thr Asn	Val 18160	Leu Glu Thr Glu	Phe 18165
				Thr Val Ser
Gly Leu 18170	Val Glu Asp Gln	Arg 18175	Tyr Glu Phe Arg	Val 18180
				Ile Ala Arg
Asn Ala 18185	Ala Gly Asn Phe	Ser 18190	Glu Pro Ser Asp	Ser 18195
				Ser Gly Ala
Ile Thr 18200	Ala Arg Asp Glu	Ile 18205	Asp Ala Pro Asn	Ala 18210
				Ser Leu Asp
Pro Lys 18215	Tyr Lys Asp Val	Ile 18220	Val Val His Ala	Gly 18225
				Glu Thr Phe

Val	Leu	Glu	Ala	Asp	Ile	Arg	Gly	Lys	Pro	Ile	Pro	Asp	Val	Val
18230						18235					18240			
Trp	Ser	Lys	Asp	Gly	Lys	Glu	Leu	Glu	Glu	Thr	Ala	Ala	Arg	Met
18245						18250					18255			
Glu	Ile	Lys	Ser	Thr	Ile	Gln	Lys	Thr	Thr	Leu	Val	Val	Lys	Asp
18260						18265					18270			
Cys	Ile	Arg	Thr	Asp	Gly	Gly	Gln	Tyr	Ile	Leu	Lys	Leu	Ser	Asn
18275						18280					18285			
Val	Gly	Gly	Thr	Lys	Ser	Ile	Pro	Ile	Thr	Val	Lys	Val	Leu	Asp
18290						18295					18300			
Arg	Pro	Gly	Ser	Pro	Glu	Gly	Pro	Leu	Lys	Val	Thr	Gly	Val	Thr
18305						18310					18315			
Ala	Glu	Lys	Cys	Tyr	Leu	Ala	Trp	Asn	Pro	Pro	Leu	Gln	Asp	Gly
18320						18325					18330			
Gly	Ala	Asn	Ile	Ser	His	Tyr	Ile	Ile	Glu	Lys	Arg	Glu	Thr	Ser
18335						18340					18345			
Arg	Leu	Ser	Trp	Thr	Gln	Val	Ser	Thr	Glu	Val	Gln	Ala	Leu	Asn
18350						18355					18360			
Tyr	Lys	Val	Thr	Lys	Leu	Leu	Pro	Gly	Asn	Glu	Tyr	Ile	Phe	Arg
18365						18370					18375			
Val	Met	Ala	Val	Asn	Lys	Tyr	Gly	Ile	Gly	Glu	Pro	Leu	Glu	Ser
18380						18385					18390			
Gly	Pro	Val	Thr	Ala	Cys	Asn	Pro	Tyr	Lys	Pro	Pro	Gly	Pro	Pro
18395						18400					18405			
Ser	Thr	Pro	Glu	Val	Ser	Ala	Ile	Thr	Lys	Asp	Ser	Met	Val	Val
18410						18415					18420			
Thr	Trp	Ala	Arg	Pro	Val	Asp	Asp	Gly	Gly	Thr	Glu	Ile	Glu	Gly
18425						18430					18435			
Tyr	Ile	Leu	Glu	Lys	Arg	Asp	Lys	Glu	Gly	Val	Arg	Trp	Thr	Lys
18440						18445					18450			

Cys Asn 18455	Lys Lys Thr Leu Thr 18460	Asp Leu Arg Leu Arg 18465	Val Thr Gly
Leu Thr 18470	Glu Gly His Ser Tyr 18475	Glu Phe Arg Val Ala 18480	Ala Glu Asn
Ala Ala 18485	Gly Val Gly Glu Pro 18490	Ser Glu Pro Ser Val 18495	Phe Tyr Arg
Ala Cys 18500	Asp Ala Leu Tyr Pro 18505	Pro Gly Pro Pro Ser 18510	Asn Pro Lys
Val Thr 18515	Asp Thr Ser Arg Ser 18520	Ser Val Ser Leu Ala 18525	Trp Ser Lys
Pro Ile 18530	Tyr Asp Gly Gly Ala 18535	Pro Val Lys Gly Tyr 18540	Val Val Glu
Val Lys 18545	Glu Ala Ala Ala Asp 18550	Glu Trp Thr Thr Cys 18555	Thr Pro Pro
Thr Gly 18560	Leu Gln Gly Lys Gln 18565	Phe Thr Val Thr Lys 18570	Leu Lys Glu
Asn Thr 18575	Glu Tyr Asn Phe Arg 18580	Ile Cys Ala Ile Asn 18585	Ser Glu Gly
Val Gly 18590	Glu Pro Ala Thr Leu 18595	Pro Gly Ser Val Val 18600	Ala Gln Glu
Arg Ile 18605	Glu Pro Pro Glu Ile 18610	Glu Leu Asp Ala Asp 18615	Leu Arg Lys
Val Val 18620	Val Leu Arg Ala Ser 18625	Ala Thr Leu Arg Leu 18630	Phe Val Thr
Ile Lys 18635	Gly Arg Pro Glu Pro 18640	Glu Val Lys Trp Glu 18645	Lys Ala Glu
Gly Ile 18650	Leu Thr Asp Arg Ala 18655	Gln Ile Glu Val Thr 18660	Ser Ser Phe
Thr Met	Leu Val Ile Asp Asn	Val Thr Arg Phe Asp	Ser Gly Arg

18665		18670		18675	
Tyr Asn 18680	Leu Thr Leu Glu	Asn 18685	Asn Ser Gly Ser	Lys 18690	Thr Ala Phe
Val Asn 18695	Val Arg Val Leu	Asp 18700	Ser Pro Ser Ala	Pro 18705	Val Asn Leu
Thr Ile 18710	Arg Glu Val Lys	Lys 18715	Asp Ser Val Thr	Leu 18720	Ser Trp Glu
Pro Pro 18725	Leu Ile Asp Gly	Gly 18730	Ala Lys Ile Thr	Asn 18735	Tyr Ile Val
Glu Lys 18740	Arg Glu Thr Thr	Arg 18745	Lys Ala Tyr Ala	Thr 18750	Ile Thr Asn
Asn Cys 18755	Thr Lys Thr Thr	Phe 18760	Arg Ile Glu Asn	Leu 18765	Gln Glu Gly
Cys Ser 18770	Tyr Tyr Phe Arg	Val 18775	Leu Ala Ser Asn	Glu 18780	Tyr Gly Ile
Gly Leu 18785	Pro Ala Glu Thr	Thr 18790	Glu Pro Val Lys	Val 18795	Ser Glu Pro
Pro Leu 18800	Pro Pro Gly Arg	Val 18805	Thr Leu Val Asp	Val 18810	Thr Arg Asn
Thr Ala 18815	Thr Ile Lys Trp	Glu 18820	Lys Pro Glu Ser	Asp 18825	Gly Gly Ser
Lys Ile 18830	Thr Gly Tyr Val	Val 18835	Glu Met Gln Thr	Lys 18840	Gly Ser Glu
Lys Trp 18845	Ser Thr Cys Thr	Gln 18850	Val Lys Thr Leu	Glu 18855	Ala Thr Ile
Ser Gly 18860	Leu Thr Ala Gly	Glu 18865	Glu Tyr Val Phe	Arg 18870	Val Ala Ala
Val Asn 18875	Glu Lys Gly Arg	Ser 18880	Asp Pro Arg Gln	Leu 18885	Gly Val Pro

Val	Ile	Ala	Arg	Asp	Ile	Glu	Ile	Lys	Pro	Ser	Val	Glu	Leu	Pro
18890						18895					18900			
Phe	His	Thr	Phe	Asn	Val	Lys	Ala	Arg	Glu	Gln	Leu	Lys	Ile	Asp
18905						18910					18915			
Val	Pro	Phe	Lys	Gly	Arg	Pro	Gln	Ala	Thr	Val	Asn	Trp	Arg	Lys
18920						18925					18930			
Asp	Gly	Gln	Thr	Leu	Lys	Glu	Thr	Thr	Arg	Val	Asn	Val	Ser	Ser
18935						18940					18945			
Ser	Lys	Thr	Val	Thr	Ser	Leu	Ser	Ile	Lys	Glu	Ala	Ser	Lys	Glu
18950						18955					18960			
Asp	Val	Gly	Thr	Tyr	Glu	Leu	Cys	Val	Ser	Asn	Ser	Ala	Gly	Ser
18965						18970					18975			
Ile	Thr	Val	Pro	Ile	Thr	Ile	Ile	Val	Leu	Asp	Arg	Pro	Gly	Pro
18980						18985					18990			
Pro	Gly	Pro	Ile	Arg	Ile	Asp	Glu	Val	Ser	Cys	Asp	Ser	Ile	Thr
18995						19000					19005			
Ile	Ser	Trp	Asn	Pro	Pro	Glu	Tyr	Asp	Gly	Gly	Cys	Gln	Ile	Ser
19010						19015					19020			
Asn	Tyr	Ile	Val	Glu	Lys	Lys	Glu	Thr	Thr	Ser	Thr	Thr	Trp	His
19025						19030					19035			
Ile	Val	Ser	Gln	Ala	Val	Ala	Arg	Thr	Ser	Ile	Lys	Ile	Val	Arg
19040						19045					19050			
Leu	Thr	Thr	Gly	Ser	Glu	Tyr	Gln	Phe	Arg	Val	Cys	Ala	Glu	Asn
19055						19060					19065			
Arg	Tyr	Gly	Lys	Ser	Ser	Tyr	Ser	Glu	Ser	Ser	Ala	Val	Val	Ala
19070						19075					19080			
Glu	Tyr	Pro	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Gly	Thr	Pro	Lys	Val
19085						19090					19095			
Val	His	Ala	Thr	Lys	Ser	Thr	Met	Leu	Val	Thr	Trp	Gln	Val	Pro
19100						19105					19110			

Val	Asn	Asp	Gly	Gly	Ser	Arg	Val	Ile	Gly	Tyr	His	Leu	Glu	Tyr
19115						19120					19125			
Lys	Glu	Arg	Ser	Ser	Ile	Leu	Trp	Ser	Lys	Ala	Asn	Lys	Ile	Leu
19130						19135					19140			
Ile	Ala	Asp	Thr	Gln	Val	Lys	Val	Ser	Gly	Leu	Asp	Glu	Gly	Leu
19145						19150					19155			
Met	Tyr	Glu	Tyr	Arg	Val	Tyr	Ala	Glu	Asn	Ile	Ala	Gly	Ile	Gly
19160						19165					19170			
Lys	Cys	Ser	Lys	Ser	Cys	Glu	Pro	Val	Pro	Ala	Arg	Asp	Pro	Cys
19175						19180					19185			
Asp	Pro	Pro	Gly	Gln	Pro	Glu	Val	Thr	Asn	Ile	Thr	Arg	Lys	Ser
19190						19195					19200			
Val	Ser	Leu	Lys	Trp	Ser	Lys	Pro	His	Tyr	Asp	Gly	Gly	Ala	Lys
19205						19210					19215			
Ile	Thr	Gly	Tyr	Ile	Val	Glu	Arg	Arg	Glu	Leu	Pro	Asp	Gly	Arg
19220						19225					19230			
Trp	Leu	Lys	Cys	Asn	Tyr	Thr	Asn	Ile	Gln	Glu	Thr	Tyr	Phe	Glu
19235						19240					19245			
Val	Thr	Glu	Leu	Thr	Glu	Asp	Gln	Arg	Tyr	Glu	Phe	Arg	Val	Phe
19250						19255					19260			
Ala	Arg	Asn	Ala	Ala	Asp	Ser	Val	Ser	Glu	Pro	Ser	Glu	Ser	Thr
19265						19270					19275			
Gly	Pro	Ile	Ile	Val	Lys	Asp	Asp	Val	Glu	Pro	Pro	Arg	Val	Met
19280						19285					19290			
Met	Asp	Val	Lys	Phe	Arg	Asp	Val	Ile	Val	Val	Lys	Ala	Gly	Glu
19295						19300					19305			
Val	Leu	Lys	Ile	Asn	Ala	Asp	Ile	Ala	Gly	Arg	Pro	Leu	Pro	Val
19310						19315					19320			
Ile	Ser	Trp	Ala	Lys	Asp	Gly	Ile	Glu	Ile	Glu	Glu	Arg	Ala	Arg

19325		19330		19335
Thr Glu 19340	Ile Ile Ser Thr	Asp 19345	Asn His Thr Leu	Leu Thr Val Lys 19350
Asp Cys 19355	Ile Arg Arg Asp	Thr 19360	Gly Gln Tyr Val	Leu Thr Leu Lys 19365
Asn Val 19370	Ala Gly Thr Arg	Ser 19375	Val Ala Val Asn	Cys Lys Val Leu 19380
Asp Lys 19385	Pro Gly Pro Pro	Ala 19390	Gly Pro Leu Glu	Ile Asn Gly Leu 19395
Thr Ala 19400	Glu Lys Cys Ser	Leu 19405	Ser Trp Gly Arg	Pro Gln Glu Asp 19410
Gly Gly 19415	Ala Asp Ile Asp	Tyr 19420	Tyr His Arg Lys	Lys Arg Glu Thr 19425
Ser His 19430	Leu Ala Trp Thr	Ile 19435	Cys Glu Gly Glu	Leu Gln Met Thr 19440
Ser Cys 19445	Lys Val Thr Lys	Leu 19450	Leu Lys Gly Asn	Glu Tyr Ile Phe 19455
Arg Val 19460	Thr Gly Val Asn	Lys 19465	Tyr Gly Val Gly	Glu Pro Leu Glu 19470
Ser Val 19475	Ala Ile Lys Ala	Leu 19480	Asp Pro Phe Thr	Val Pro Ser Pro 19485
Pro Thr 19490	Ser Leu Glu Ile	Thr 19495	Ser Val Thr Lys	Glu Ser Met Thr 19500
Leu Cys 19505	Trp Ser Arg Pro	Glu 19510	Ser Asp Gly Gly	Ser Glu Ile Ser 19515
Gly Tyr 19520	Ile Ile Glu Arg	Arg 19525	Glu Lys Asn Ser	Leu Arg Trp Val 19530
Arg Val 19535	Asn Lys Lys Pro	Val 19540	Tyr Asp Leu Arg	Val Lys Ser Thr 19545

Gly Leu 19550	Arg Glu Gly Cys Glu 19555	Tyr Glu Tyr Arg Val 19560	Tyr Ala Glu
Asn Ala 19565	Ala Gly Leu Ser Leu 19570	Pro Ser Glu Thr Ser 19575	Pro Leu Ile
Arg Ala 19580	Glu Asp Pro Val Phe 19585	Leu Pro Ser Pro Pro 19590	Ser Lys Pro
Lys Ile 19595	Val Asp Ser Gly Lys 19600	Thr Thr Ile Thr Ile 19605	Ala Trp Val
Lys Pro 19610	Leu Phe Asp Gly Gly 19615	Ala Pro Ile Thr Gly 19620	Tyr Thr Val
Glu Tyr 19625	Lys Lys Ser Asp Asp 19630	Thr Asp Trp Lys Thr 19635	Ser Ile Gln
Ser Leu 19640	Arg Gly Thr Glu Tyr 19645	Thr Ile Ser Gly Leu 19650	Thr Thr Gly
Ala Glu 19655	Tyr Val Phe Arg Val 19660	Lys Ser Val Asn Lys 19665	Val Gly Ala
Ser Asp 19670	Pro Ser Asp Ser Ser 19675	Asp Pro Gln Ile Ala 19680	Lys Glu Arg
Glu Glu 19685	Glu Pro Leu Phe Asp 19690	Ile Asp Ser Glu Met 19695	Arg Lys Thr
Leu Ile 19700	Val Lys Ala Gly Ala 19705	Ser Phe Thr Met Thr 19710	Val Pro Phe
Arg Gly 19715	Arg Pro Val Pro Asn 19720	Val Leu Trp Ser Lys 19725	Pro Asp Thr
Asp Leu 19730	Arg Thr Arg Ala Tyr 19735	Val Asp Thr Thr Asp 19740	Ser Arg Thr
Ser Leu 19745	Thr Ile Glu Asn Ala 19750	Asn Arg Asn Asp Ser 19755	Gly Lys Tyr
Thr Leu 19760	Thr Ile Gln Asn Val 19765	Leu Ser Ala Ala Ser 19770	Leu Thr Leu

Val	Val	Lys	Val	Leu	Asp	Thr	Pro	Gly	Pro	Pro	Thr	Asn	Ile	Thr
19775						19780					19785			
Val	Gln	Asp	Val	Thr	Lys	Glu	Ser	Ala	Val	Leu	Ser	Trp	Asp	Val
19790						19795					19800			
Pro	Glu	Asn	Asp	Gly	Gly	Ala	Pro	Val	Lys	Asn	Tyr	His	Ile	Glu
19805						19810					19815			
Lys	Arg	Glu	Ala	Ser	Lys	Lys	Ala	Trp	Val	Ser	Val	Thr	Asn	Asn
19820						19825					19830			
Cys	Asn	Arg	Leu	Ser	Tyr	Lys	Val	Thr	Asn	Leu	Gln	Glu	Gly	Ala
19835						19840					19845			
Ile	Tyr	Tyr	Phe	Arg	Val	Ser	Gly	Glu	Asn	Glu	Phe	Gly	Val	Gly
19850						19855					19860			
Ile	Pro	Ala	Glu	Thr	Lys	Glu	Gly	Val	Lys	Ile	Thr	Glu	Lys	Pro
19865						19870					19875			
Ser	Pro	Pro	Glu	Lys	Leu	Gly	Val	Thr	Ser	Ile	Ser	Lys	Asp	Ser
19880						19885					19890			
Val	Ser	Leu	Thr	Trp	Leu	Lys	Pro	Glu	His	Asp	Gly	Gly	Ser	Arg
19895						19900					19905			
Ile	Val	His	Tyr	Val	Val	Glu	Ala	Leu	Glu	Lys	Gly	Gln	Lys	Asn
19910						19915					19920			
Trp	Val	Lys	Cys	Ala	Val	Ala	Lys	Ser	Thr	His	His	Val	Val	Ser
19925						19930					19935			
Gly	Leu	Arg	Glu	Asn	Ser	Glu	Tyr	Phe	Phe	Arg	Val	Phe	Ala	Glu
19940						19945					19950			
Asn	Gln	Ala	Gly	Leu	Ser	Asp	Pro	Arg	Glu	Leu	Leu	Leu	Pro	Val
19955						19960					19965			
Leu	Ile	Lys	Glu	Gln	Leu	Glu	Pro	Pro	Glu	Ile	Asp	Met	Lys	Asn
19970						19975					19980			
Phe	Pro	Ser	His	Thr	Val	Tyr	Val	Arg	Ala	Gly	Ser	Asn	Leu	Lys

19985					19990					19995				
Val	Asp	Ile	Pro	Ile	Ser	Gly	Lys	Pro	Leu	Pro	Lys	Val	Thr	Leu
20000						20005					20010			
Ser	Arg	Asp	Gly	Val	Pro	Leu	Lys	Ala	Thr	Met	Arg	Phe	Asn	Thr
20015						20020					20025			
Glu	Ile	Thr	Ala	Glu	Asn	Leu	Thr	Ile	Asn	Leu	Lys	Glu	Ser	Val
20030						20035					20040			
Thr	Ala	Asp	Ala	Gly	Arg	Tyr	Glu	Ile	Thr	Ala	Ala	Asn	Ser	Ser
20045						20050					20055			
Gly	Thr	Thr	Lys	Ala	Phe	Ile	Asn	Ile	Val	Val	Leu	Asp	Arg	Pro
20060						20065					20070			
Gly	Pro	Pro	Thr	Gly	Pro	Val	Val	Ile	Ser	Asp	Ile	Thr	Glu	Glu
20075						20080					20085			
Ser	Val	Thr	Leu	Lys	Trp	Glu	Pro	Pro	Lys	Tyr	Asp	Gly	Gly	Ser
20090						20095					20100			
Gln	Val	Thr	Asn	Tyr	Ile	Leu	Leu	Lys	Arg	Glu	Thr	Ser	Thr	Ala
20105						20110					20115			
Val	Trp	Thr	Glu	Val	Ser	Ala	Thr	Val	Ala	Arg	Thr	Met	Met	Lys
20120						20125					20130			
Val	Met	Lys	Leu	Thr	Thr	Gly	Glu	Glu	Tyr	Gln	Phe	Arg	Ile	Lys
20135						20140					20145			
Ala	Glu	Asn	Arg	Phe	Gly	Ile	Ser	Asp	His	Ile	Asp	Ser	Ala	Cys
20150						20155					20160			
Val	Thr	Val	Lys	Leu	Pro	Tyr	Thr	Thr	Pro	Gly	Pro	Pro	Ser	Thr
20165						20170					20175			
Pro	Trp	Val	Thr	Asn	Val	Thr	Arg	Glu	Ser	Ile	Thr	Val	Gly	Trp
20180						20185					20190			
His	Glu	Pro	Val	Ser	Asn	Gly	Gly	Ser	Ala	Val	Val	Gly	Tyr	His
20195						20200					20205			

Leu Glu 20210	Met Lys Asp Arg Asn 20215	Ser Ile Leu Trp Gln 20220	Lys Ala Asn
Lys Leu 20225	Val Ile Arg Thr Thr 20230	His Phe Lys Val Thr 20235	Thr Ile Ser
Ala Gly 20240	Leu Ile Tyr Glu Phe 20245	Arg Val Tyr Ala Glu 20250	Asn Ala Ala
Gly Val 20255	Gly Lys Pro Ser His 20260	Pro Ser Glu Pro Val 20265	Leu Ala Ile
Asp Ala 20270	Cys Glu Pro Pro Arg 20275	Asn Val Arg Ile Thr 20280	Asp Ile Ser
Lys Asn 20285	Ser Val Ser Leu Ser 20290	Trp Gln Gln Pro Ala 20295	Phe Asp Gly
Gly Ser 20300	Lys Ile Thr Gly Tyr 20305	Ile Val Glu Arg Arg 20310	Asp Leu Pro
Asp Gly 20315	Arg Trp Thr Lys Ala 20320	Ser Phe Thr Asn Val 20325	Thr Glu Thr
Gln Phe 20330	Thr Ile Ser Gly Leu 20335	Thr Gln Asn Ser Gln 20340	Tyr Glu Phe
Arg Val 20345	Phe Ala Arg Asn Ala 20350	Val Gly Ser Ile Ser 20355	Asn Pro Ser
Glu Val 20360	Val Gly Pro Ile Thr 20365	Cys Ile Asp Ser Tyr 20370	Gly Gly Pro
Val Ile 20375	Asp Leu Pro Leu Glu 20380	Tyr Thr Glu Val Val 20385	Lys Tyr Arg
Ala Gly 20390	Thr Ser Val Lys Leu 20395	Arg Ala Gly Ile Ser 20400	Gly Lys Pro
Ala Pro 20405	Thr Ile Glu Trp Tyr 20410	Lys Asp Asp Lys Glu 20415	Leu Gln Thr
Asn Ala 20420	Leu Val Cys Val Glu 20425	Asn Thr Thr Asp Leu 20430	Ala Ser Ile

Leu Ile 20435	Lys Asp Ala Asp Arg 20440	Leu Asn Ser Gly Cys 20445	Tyr Glu Leu
Lys Leu 20450	Arg Asn Ala Met Ala 20455	Ser Ala Ser Ala Thr 20460	Ile Arg Val
Gln Ile 20465	Leu Asp Lys Pro Gly 20470	Pro Pro Gly Gly Pro 20475	Ile Glu Phe
Lys Thr 20480	Val Thr Ala Glu Lys 20485	Ile Thr Leu Leu Trp 20490	Arg Pro Pro
Ala Asp 20495	Asp Gly Gly Ala Lys 20500	Ile Thr His Tyr Ile 20505	Val Glu Lys
Arg Glu 20510	Thr Ser Arg Val Val 20515	Trp Ser Met Val Ser 20520	Glu His Leu
Glu Glu 20525	Cys Ile Ile Thr Thr 20530	Thr Lys Ile Ile Lys 20535	Gly Asn Glu
Tyr Ile 20540	Phe Arg Val Arg Ala 20545	Val Asn Lys Tyr Gly 20550	Ile Gly Glu
Pro Leu 20555	Glu Ser Asp Ser Val 20560	Val Ala Lys Asn Ala 20565	Phe Val Thr
Pro Gly 20570	Pro Pro Gly Ile Pro 20575	Glu Val Thr Lys Ile 20580	Thr Lys Asn
Ser Met 20585	Thr Val Val Trp Ser 20590	Arg Pro Ile Ala Asp 20595	Gly Gly Ser
Asp Ile 20600	Ser Gly Tyr Phe Leu 20605	Glu Lys Arg Asp Lys 20610	Lys Ser Leu
Gly Trp 20615	Phe Lys Val Leu Lys 20620	Glu Thr Ile Arg Asp 20625	Thr Arg Gln
Lys Val 20630	Thr Gly Leu Thr Glu 20635	Asn Ser Asp Tyr Gln 20640	Tyr Arg Val
Cys Ala	Val Asn Ala Ala Gly	Gln Gly Pro Phe Ser	Glu Pro Ser

20645		20650		20655	
Glu Phe Tyr Lys Ala Ala Asp	Pro Ile Asp Pro Pro	Gly Pro Pro			
20660	20665	20670			
Ala Lys Ile Arg Ile Ala Asp	Ser Thr Lys Ser Ser	Ile Thr Leu			
20675	20680	20685			
Gly Trp Ser Lys Pro Val Tyr	Asp Gly Gly Ser Ala	Val Thr Gly			
20690	20695	20700			
Tyr Val Val Glu Ile Arg Gln	Gly Glu Glu Glu Glu	Trp Thr Thr			
20705	20710	20715			
Val Ser Thr Lys Gly Glu Val	Arg Thr Thr Glu Tyr	Val Val Ser			
20720	20725	20730			
Asn Leu Lys Pro Gly Val Asn	Tyr Tyr Phe Arg Val	Ser Ala Val			
20735	20740	20745			
Asn Cys Ala Gly Gln Gly Glu	Pro Ile Glu Met Asn	Glu Pro Val			
20750	20755	20760			
Gln Ala Lys Asp Ile Leu Glu	Ala Pro Glu Ile Asp	Leu Asp Val			
20765	20770	20775			
Ala Leu Arg Thr Ser Val Ile	Ala Lys Ala Gly Glu	Asp Val Gln			
20780	20785	20790			
Val Leu Ile Pro Phe Lys Gly	Arg Pro Pro Pro Thr	Val Thr Trp			
20795	20800	20805			
Arg Lys Asp Glu Lys Asn Leu	Gly Ser Asp Ala Arg	Tyr Ser Ile			
20810	20815	20820			
Glu Asn Thr Asp Ser Ser Ser	Leu Leu Thr Ile Pro	Gln Val Thr			
20825	20830	20835			
Arg Asn Asp Thr Gly Lys Tyr	Ile Leu Thr Ile Glu	Asn Gly Val			
20840	20845	20850			
Gly Glu Pro Lys Ser Ser Thr	Val Ser Val Lys Val	Leu Asp Thr			
20855	20860	20865			

Pro	Ala	Ala	Cys	Gln	Lys	Leu	Gln	Val	Lys	His	Val	Ser	Arg	Gly
	20870					20875					20880			
Thr	Val	Thr	Leu	Leu	Trp	Asp	Pro	Pro	Leu	Ile	Asp	Gly	Gly	Ser
	20885					20890					20895			
Pro	Ile	Ile	Asn	Tyr	Val	Ile	Glu	Lys	Arg	Asp	Ala	Thr	Lys	Arg
	20900					20905					20910			
Thr	Trp	Ser	Val	Val	Ser	His	Lys	Cys	Ser	Ser	Thr	Ser	Phe	Lys
	20915					20920					20925			
Leu	Ile	Asp	Leu	Ser	Glu	Lys	Thr	Pro	Phe	Phe	Phe	Arg	Val	Leu
	20930					20935					20940			
Ala	Glu	Asn	Glu	Ile	Gly	Ile	Gly	Glu	Pro	Cys	Glu	Thr	Thr	Glu
	20945					20950					20955			
Pro	Val	Lys	Ala	Ala	Glu	Val	Pro	Ala	Pro	Ile	Arg	Asp	Leu	Ser
	20960					20965					20970			
Met	Lys	Asp	Ser	Thr	Lys	Thr	Ser	Val	Ile	Leu	Ser	Trp	Thr	Lys
	20975					20980					20985			
Pro	Asp	Phe	Asp	Gly	Gly	Ser	Val	Ile	Thr	Glu	Tyr	Val	Val	Glu
	20990					20995					21000			
Arg	Lys	Gly	Lys	Gly	Glu	Gln	Thr	Trp	Ser	His	Ala	Gly	Ile	Ser
	21005					21010					21015			
Lys	Thr	Cys	Glu	Ile	Glu	Val	Ser	Gln	Leu	Lys	Glu	Gln	Ser	Val
	21020					21025					21030			
Leu	Glu	Phe	Arg	Val	Phe	Ala	Lys	Asn	Glu	Lys	Gly	Leu	Ser	Asp
	21035					21040					21045			
Pro	Val	Thr	Ile	Gly	Pro	Ile	Thr	Val	Lys	Glu	Leu	Ile	Ile	Thr
	21050					21055					21060			
Pro	Glu	Val	Asp	Leu	Ser	Asp	Ile	Pro	Gly	Ala	Gln	Val	Thr	Val
	21065					21070					21075			
Arg	Ile	Gly	His	Asn	Val	His	Leu	Glu	Leu	Pro	Tyr	Lys	Gly	Lys
	21080					21085					21090			

Pro Lys 21095	Pro Ser Ile Ser Trp 21100	Leu Lys Asp Gly Leu 21105	Pro Leu Lys
Glu Ser 21110	Glu Phe Val Arg Phe 21115	Ser Lys Thr Glu Asn 21120	Lys Ile Thr
Leu Ser 21125	Ile Lys Asn Ala Lys 21130	Lys Glu His Gly Gly 21135	Lys Tyr Thr
Val Ile 21140	Leu Asp Asn Ala Val 21145	Cys Arg Ile Ala Val 21150	Pro Ile Thr
Val Ile 21155	Thr Leu Gly Pro Pro 21160	Ser Lys Pro Lys Gly 21165	Pro Ile Arg
Phe Asp 21170	Glu Ile Lys Ala Asp 21175	Ser Val Ile Leu Ser 21180	Trp Asp Val
Pro Glu 21185	Asp Asn Gly Gly Gly 21190	Glu Ile Thr Cys Tyr 21195	Ser Ile Glu
Lys Arg 21200	Glu Thr Ser Gln Thr 21205	Asn Trp Lys Met Val 21210	Cys Ser Ser
Val Ala 21215	Arg Thr Thr Phe Lys 21220	Val Pro Asn Leu Val 21225	Lys Asp Ala
Glu Tyr 21230	Gln Phe Arg Val Arg 21235	Ala Glu Asn Arg Tyr 21240	Gly Val Ser
Gln Pro 21245	Leu Val Ser Ser Ile 21250	Ile Val Ala Lys His 21255	Gln Phe Arg
Ile Pro 21260	Gly Pro Pro Gly Lys 21265	Pro Val Ile Tyr Asn 21270	Val Thr Ser
Asp Gly 21275	Met Ser Leu Thr Trp 21280	Asp Ala Pro Val Tyr 21285	Asp Gly Gly
Ser Glu 21290	Val Thr Gly Phe His 21295	Val Glu Lys Lys Glu 21300	Arg Asn Ser
Ile Leu	Trp Gln Lys Val Asn	Thr Ser Pro Ile Ser	Gly Arg Glu

21305		21310		21315
Tyr Arg 21320	Ala Thr Gly Leu	Val 21325	Glu Gly Leu Asp	Tyr Gln Phe Arg 21330
Val Tyr 21335	Ala Glu Asn Ser	Ala 21340	Gly Leu Ser Ser	Pro Ser Asp Pro 21345
Ser Lys 21350	Phe Thr Leu Ala	Val 21355	Ser Pro Val Asp	Pro Pro Gly Thr 21360
Pro Asp 21365	Tyr Ile Asp Val	Thr 21370	Arg Glu Thr Ile	Thr Leu Lys Trp 21375
Asn Pro 21380	Pro Leu Arg Asp	Gly 21385	Gly Ser Lys Ile	Val Gly Tyr Ser 21390
Ile Glu 21395	Lys Arg Gln Gly	Asn 21400	Glu Arg Trp Val	Arg Cys Asn Phe 21405
Thr Asp 21410	Val Ser Glu Cys	Gln 21415	Tyr Thr Val Thr	Gly Leu Ser Pro 21420
Gly Asp 21425	Arg Tyr Glu Phe	Arg 21430	Ile Ile Ala Arg	Asn Ala Val Gly 21435
Thr Ile 21440	Ser Pro Pro Ser	Gln 21445	Ser Ser Gly Ile	Ile Met Thr Arg 21450
Asp Glu 21455	Asn Val Pro Pro	Ile 21460	Val Glu Phe Gly	Pro Glu Tyr Phe 21465
Asp Gly 21470	Leu Ile Ile Lys	Ser 21475	Gly Glu Ser Leu	Arg Ile Lys Ala 21480
Leu Val 21485	Gln Gly Arg Pro	Val 21490	Pro Arg Val Thr	Trp Phe Lys Asp 21495
Gly Val 21500	Glu Ile Glu Lys	Arg 21505	Met Asn Met Glu	Ile Thr Asn Val 21510
Leu Gly 21515	Ser Thr Ser Leu	Phe 21520	Val Arg Asp Ala	Thr Arg Asp His 21525

Arg Gly 21530	Val Tyr Thr Val	Glu 21535	Ala Lys Asn Ala	Ser 21540	Gly Ser Ala
Lys Ala 21545	Glu Ile Lys Val	Lys 21550	Val Gln Asp Thr	Pro 21555	Gly Lys Val
Val Gly 21560	Pro Ile Arg Phe	Thr 21565	Asn Ile Thr Gly	Glu 21570	Lys Met Thr
Leu Trp 21575	Trp Asp Ala Pro	Leu 21580	Asn Asp Gly Cys	Ala 21585	Pro Ile Thr
His Tyr 21590	Ile Ile Glu Lys	Arg 21595	Glu Thr Ser Arg	Leu 21600	Ala Trp Ala
Leu Ile 21605	Glu Asp Lys Cys	Glu 21610	Ala Gln Ser Tyr	Thr 21615	Ala Ile Lys
Leu Ile 21620	Asn Gly Asn Glu	Tyr 21625	Gln Phe Arg Val	Ser 21630	Ala Val Asn
Lys Phe 21635	Gly Val Gly Arg	Pro 21640	Leu Asp Ser Asp	Pro 21645	Val Val Ala
Gln Ile 21650	Gln Tyr Thr Val	Pro 21655	Asp Ala Pro Gly	Ile 21660	Pro Glu Pro
Ser Asn 21665	Ile Thr Gly Asn	Ser 21670	Ile Thr Leu Thr	Trp 21675	Ala Arg Pro
Glu Ser 21680	Asp Gly Gly Ser	Glu 21685	Ile Gln Gln Tyr	Ile 21690	Leu Glu Arg
Arg Glu 21695	Lys Lys Ser Thr	Arg 21700	Trp Val Lys Val	Ile 21705	Ser Lys Arg
Pro Ile 21710	Ser Glu Thr Arg	Phe 21715	Lys Val Thr Gly	Leu 21720	Thr Glu Gly
Asn Glu 21725	Tyr Glu Phe His	Val 21730	Met Ala Glu Asn	Ala 21735	Ala Gly Val
Gly Pro 21740	Ala Ser Gly Ile	Ser 21745	Arg Leu Ile Lys	Cys 21750	Arg Glu Pro

Val	Asn	Pro	Pro	Gly	Pro	Pro	Thr	Val	Val	Lys	Val	Thr	Asp	Thr
21755						21760					21765			
Ser	Lys	Thr	Thr	Val	Ser	Leu	Glu	Trp	Ser	Lys	Pro	Val	Phe	Asp
21770						21775					21780			
Gly	Gly	Met	Glu	Ile	Ile	Gly	Tyr	Ile	Ile	Glu	Met	Cys	Lys	Thr
21785						21790					21795			
Asp	Leu	Gly	Asp	Trp	His	Lys	Val	Asn	Ala	Glu	Ala	Cys	Val	Lys
21800						21805					21810			
Thr	Arg	Tyr	Thr	Val	Thr	Asp	Leu	Gln	Ala	Gly	Glu	Glu	Tyr	Lys
21815						21820					21825			
Phe	Arg	Val	Ser	Ala	Ile	Asn	Gly	Ala	Gly	Lys	Gly	Asp	Ser	Cys
21830						21835					21840			
Glu	Val	Thr	Gly	Thr	Ile	Lys	Ala	Val	Asp	Arg	Leu	Thr	Ala	Pro
21845						21850					21855			
Glu	Leu	Asp	Ile	Asp	Ala	Asn	Phe	Lys	Gln	Thr	His	Val	Val	Arg
21860						21865					21870			
Ala	Gly	Ala	Ser	Ile	Arg	Leu	Phe	Ile	Ala	Tyr	Gln	Gly	Arg	Pro
21875						21880					21885			
Thr	Pro	Thr	Ala	Val	Trp	Ser	Lys	Pro	Asp	Ser	Asn	Leu	Ser	Leu
21890						21895					21900			
Arg	Ala	Asp	Ile	His	Thr	Thr	Asp	Ser	Phe	Ser	Thr	Leu	Thr	Val
21905						21910					21915			
Glu	Asn	Cys	Asn	Arg	Asn	Asp	Ala	Gly	Lys	Tyr	Thr	Leu	Thr	Val
21920						21925					21930			
Glu	Asn	Asn	Ser	Gly	Ser	Lys	Ser	Ile	Thr	Phe	Thr	Val	Lys	Val
21935						21940					21945			
Leu	Asp	Thr	Pro	Gly	Pro	Pro	Gly	Pro	Ile	Thr	Phe	Lys	Asp	Val
21950						21955					21960			
Thr	Arg	Gly	Ser	Ala	Thr	Leu	Met	Trp	Asp	Ala	Pro	Leu	Leu	Asp

21965		21970		21975
Gly Gly 21980	Ala Arg Ile His His	His 21985	Tyr Val Val Glu Lys	Arg Glu Ala 21990
Ser Arg 21995	Arg Ser Trp Gln Val	22000	Ile Ser Glu Lys Cys	Thr Arg Gln 22005
Ile Phe 22010	Lys Val Asn Asp Leu	22015	Ala Glu Gly Val Pro	Tyr Tyr Phe 22020
Arg Val 22025	Ser Ala Val Asn Glu	22030	Tyr Gly Val Gly Glu	Pro Tyr Glu 22035
Met Pro 22040	Glu Pro Ile Val Ala	22045	Thr Glu Gln Pro Ala	Pro Pro Arg 22050
Arg Leu 22055	Asp Val Val Asp Thr	22060	Ser Lys Ser Ser Ala	Val Leu Ala 22065
Trp Leu 22070	Lys Pro Asp His Asp	22075	Gly Gly Ser Arg Ile	Thr Gly Tyr 22080
Leu Leu 22085	Glu Met Arg Gln Lys	22090	Gly Ser Asp Leu Trp	Val Glu Ala 22095
Gly His 22100	Thr Lys Gln Leu Thr	22105	Phe Thr Val Glu Arg	Leu Val Glu 22110
Lys Thr 22115	Glu Tyr Glu Phe Arg	22120	Val Lys Ala Lys Asn	Asp Ala Gly 22125
Tyr Ser 22130	Glu Pro Arg Glu Ala	22135	Phe Ser Ser Val Ile	Ile Lys Glu 22140
Pro Gln 22145	Ile Glu Pro Thr Ala	22150	Asp Leu Thr Gly Ile	Thr Asn Gln 22155
Leu Ile 22160	Thr Cys Lys Ala Gly	22165	Ser Pro Phe Thr Ile	Asp Val Pro 22170
Ile Ser 22175	Gly Arg Pro Ala Pro	22180	Lys Val Thr Trp Lys	Leu Glu Glu 22185

Met Arg 22190	Leu Lys Glu Thr	Asp 22195	Arg Val Ser Ile Thr	Thr Thr Lys 22200
Asp Arg 22205	Thr Thr Leu Thr	Val 22210	Lys Asp Ser Met Arg	Gly Asp Ser 22215
Gly Arg 22220	Tyr Phe Leu Thr	Leu 22225	Glu Asn Thr Ala Gly	Val Lys Thr 22230
Phe Ser 22235	Val Thr Val Val	Val 22240	Ile Gly Arg Pro Gly	Pro Val Thr 22245
Gly Pro 22250	Ile Glu Val Ser	Ser 22255	Val Ser Ala Glu Ser	Cys Val Leu 22260
Ser Trp 22265	Gly Glu Pro Lys	Asp 22270	Gly Gly Gly Thr Glu	Ile Thr Asn 22275
Tyr Ile 22280	Val Glu Lys Arg	Glu 22285	Ser Gly Thr Thr Ala	Trp Gln Leu 22290
Val Asn 22295	Ser Ser Val Lys	Arg 22300	Thr Gln Ile Lys Val	Thr His Leu 22305
Thr Lys 22310	Tyr Met Glu Tyr	Ser 22315	Phe Arg Val Ser Ser	Glu Asn Arg 22320
Phe Gly 22325	Val Ser Lys Pro	Leu 22330	Glu Ser Ala Pro Ile	Ile Ala Glu 22335
His Pro 22340	Phe Val Pro Pro	Ser 22345	Ala Pro Thr Arg Pro	Glu Val Tyr 22350
His Val 22355	Ser Ala Asn Ala	Met 22360	Ser Ile Arg Trp Glu	Glu Pro Tyr 22365
His Asp 22370	Gly Gly Ser Lys	Ile 22375	Ile Gly Tyr Trp Val	Glu Lys Lys 22380
Glu Arg 22385	Asn Thr Ile Leu	Trp 22390	Val Lys Glu Asn Lys	Val Pro Cys 22395
Leu Glu 22400	Cys Asn Tyr Lys	Val 22405	Thr Gly Leu Val Glu	Gly Leu Glu 22410

Tyr Gln 22415	Phe Arg Thr Tyr	Ala 22420	Leu Asn Ala Ala Gly	Val Ser Lys
Ala Ser 22430	Glu Ala Ser Arg	Pro 22435	Ile Met Ala Gln Asn	Pro Val Asp
Ala Pro 22445	Gly Arg Pro Glu	Val 22450	Thr Asp Val Thr Arg	Ser Thr Val
Ser Leu 22460	Ile Trp Ser Ala	Pro 22465	Ala Tyr Asp Gly Gly	Ser Lys Val
Val Gly 22475	Tyr Ile Ile Glu	Arg 22480	Lys Pro Val Ser Glu	Val Gly Asp
Gly Arg 22490	Trp Leu Lys Cys	Asn 22495	Tyr Thr Ile Val Ser	Asp Asn Phe
Phe Thr 22505	Val Thr Ala Leu	Ser 22510	Glu Gly Asp Thr Tyr	Glu Phe Arg
Val Leu 22520	Ala Lys Asn Ala	Ala 22525	Gly Val Ile Ser Lys	Gly Ser Glu
Ser Thr 22535	Gly Pro Val Thr	Cys 22540	Arg Asp Glu Tyr Ala	Pro Pro Lys
Ala Glu 22550	Leu Asp Ala Arg	Leu 22555	His Gly Asp Leu Val	Thr Ile Arg
Ala Gly 22565	Ser Asp Leu Val	Leu 22570	Asp Ala Ala Val Gly	Gly Lys Pro
Glu Pro 22580	Lys Ile Ile Trp	Thr 22585	Lys Gly Asp Lys Glu	Leu Asp Leu
Cys Glu 22595	Lys Val Ser Leu	Gln 22600	Tyr Thr Gly Lys Arg	Ala Thr Ala
Val Ile 22610	Lys Phe Cys Asp	Arg 22615	Ser Asp Ser Gly Lys	Tyr Thr Leu
Thr Val	Lys Asn Ala Ser Gly	Thr Lys Ala Val Ser	Val Met Val	

22625		22630		22635
Lys Val 22640	Leu Asp Ser Pro	Gly 22645	Pro Cys Gly Lys	Leu Thr Val Ser 22650
Arg Val 22655	Thr Gln Glu Lys	Cys 22660	Thr Leu Ala Trp	Ser Leu Pro Gln 22665
Glu Asp 22670	Gly Gly Ala Glu	Ile 22675	Thr His Tyr Ile	Val Glu Arg Arg 22680
Glu Thr 22685	Ser Arg Leu Asn	Trp 22690	Val Ile Val Glu	Gly Glu Cys Pro 22695
Thr Leu 22700	Ser Tyr Val Val	Thr 22705	Arg Leu Ile Lys	Asn Asn Glu Tyr 22710
Ile Phe 22715	Arg Val Arg Ala	Val 22720	Asn Lys Tyr Gly	Pro Gly Val Pro 22725
Val Glu 22730	Ser Glu Pro Ile	Val 22735	Ala Arg Asn Ser	Phe Thr Ile Pro 22740
Ser Pro 22745	Pro Gly Ile Pro	Glu 22750	Glu Val Gly Thr	Gly Lys Glu His 22755
Ile Ile 22760	Ile Gln Trp Thr	Lys 22765	Pro Glu Ser Asp	Gly Gly Asn Glu 22770
Ile Ser 22775	Asn Tyr Leu Val	Asp 22780	Lys Arg Glu Lys	Glu Ser Leu Arg 22785
Trp Thr 22790	Arg Val Asn Lys	Asp 22795	Tyr Val Val Tyr	Asp Thr Arg Leu 22800
Lys Val 22805	Thr Ser Leu Met	Glu 22810	Gly Cys Asp Tyr	Gln Phe Arg Val 22815
Thr Ala 22820	Val Asn Ala Ala	Gly 22825	Asn Ser Glu Pro	Ser Glu Arg Ser 22830
Asn Phe 22835	Ile Ser Cys Arg	Glu 22840	Pro Ser Tyr Thr	Pro Gly Pro Pro 22845

Ser	Ala	Pro	Arg	Val	Val	Asp	Thr	Thr	Lys	His	Ser	Ile	Ser	Leu
22850						22855					22860			
Ala	Trp	Thr	Lys	Pro	Met	Tyr	Asp	Gly	Gly	Thr	Asp	Ile	Val	Gly
22865						22870					22875			
Tyr	Val	Leu	Glu	Met	Gln	Glu	Lys	Asp	Thr	Asp	Gln	Trp	Tyr	Arg
22880						22885					22890			
Val	His	Thr	Asn	Ala	Thr	Ile	Arg	Asn	Thr	Glu	Phe	Thr	Val	Pro
22895						22900					22905			
Asp	Leu	Lys	Met	Gly	Gln	Lys	Tyr	Ser	Phe	Arg	Val	Ala	Ala	Val
22910						22915					22920			
Asn	Val	Lys	Gly	Met	Ser	Glu	Tyr	Ser	Glu	Ser	Ile	Ala	Glu	Ile
22925						22930					22935			
Glu	Pro	Val	Glu	Arg	Ile	Glu	Ile	Pro	Asp	Leu	Glu	Leu	Ala	Asp
22940						22945					22950			
Asp	Leu	Lys	Lys	Thr	Val	Thr	Ile	Arg	Ala	Gly	Ala	Ser	Leu	Arg
22955						22960					22965			
Leu	Met	Val	Ser	Val	Ser	Gly	Arg	Pro	Pro	Pro	Val	Ile	Thr	Trp
22970						22975					22980			
Ser	Lys	Gln	Gly	Ile	Asp	Leu	Ala	Ser	Arg	Ala	Ile	Ile	Asp	Thr
22985						22990					22995			
Thr	Glu	Ser	Tyr	Ser	Leu	Leu	Ile	Val	Asp	Lys	Val	Asn	Arg	Tyr
23000						23005					23010			
Asp	Ala	Gly	Lys	Tyr	Thr	Ile	Glu	Ala	Glu	Asn	Gln	Ser	Gly	Lys
23015						23020					23025			
Lys	Ser	Ala	Thr	Val	Leu	Val	Lys	Val	Tyr	Asp	Thr	Pro	Gly	Pro
23030						23035					23040			
Cys	Pro	Ser	Val	Lys	Val	Lys	Glu	Val	Ser	Arg	Asp	Ser	Val	Thr
23045						23050					23055			
Ile	Thr	Trp	Glu	Ile	Pro	Thr	Ile	Asp	Gly	Gly	Ala	Pro	Ile	Asn
23060						23065					23070			

Asn Tyr 23075	Ile Val Glu Lys Arg 23080	Glu Ala Ala Met Arg 23085	Ala Phe Lys
Thr Val 23090	Thr Thr Lys Cys Ser 23095	Lys Thr Leu Tyr Arg 23100	Ile Ser Gly
Leu Val 23105	Glu Gly Thr Met His 23110	Tyr Phe Arg Val Leu 23115	Pro Glu Asn
Ile Tyr 23120	Gly Ile Gly Glu Pro 23125	Cys Glu Thr Ser Asp 23130	Ala Val Leu
Val Ser 23135	Glu Val Pro Leu Val 23140	Pro Ala Lys Leu Glu 23145	Val Val Asp
Val Thr 23150	Lys Ser Thr Val Thr 23155	Leu Ala Trp Glu Lys 23160	Pro Leu Tyr
Asp Gly 23165	Gly Ser Arg Leu Thr 23170	Gly Tyr Val Leu Glu 23175	Ala Cys Lys
Ala Gly 23180	Thr Glu Arg Trp Met 23185	Lys Val Val Thr Leu 23190	Lys Pro Thr
Val Leu 23195	Glu His Thr Val Thr 23200	Ser Leu Asn Glu Gly 23205	Glu Gln Tyr
Leu Phe 23210	Arg Ile Arg Ala Gln 23215	Asn Glu Lys Gly Val 23220	Ser Glu Pro
Arg Glu 23225	Thr Val Thr Ala Val 23230	Thr Val Gln Asp Leu 23235	Arg Val Leu
Pro Thr 23240	Ile Asp Leu Ser Thr 23245	Met Pro Gln Lys Thr 23250	Ile His Val
Pro Ala 23255	Gly Arg Pro Val Glu 23260	Leu Val Ile Pro Ile 23265	Ala Gly Arg
Pro Pro 23270	Pro Ala Ala Ser Trp 23275	Phe Phe Ala Gly Ser 23280	Lys Leu Arg
Glu Ser	Glu Arg Val Thr Val	Glu Thr His Thr Lys	Val Ala Lys

23285		23290		23295
Leu Thr 23300	Ile Arg Glu Thr	Thr 23305	Ile Arg Asp Thr	Gly Glu Tyr Thr 23310
Leu Glu 23315	Leu Lys Asn Val	Thr 23320	Gly Thr Thr Ser	Glu Thr Ile Lys 23325
Val Ile 23330	Ile Leu Asp Lys	Pro 23335	Gly Pro Pro Thr	Gly Pro Ile Lys 23340
Ile Asp 23345	Glu Ile Asp Ala	Thr 23350	Ser Ile Thr Ile	Ser Trp Glu Pro 23355
Pro Glu 23360	Leu Asp Gly Gly	Ala 23365	Pro Leu Ser Gly	Tyr Val Val Glu 23370
Gln Arg 23375	Asp Ala His Arg	Pro 23380	Gly Trp Leu Pro	Val Ser Glu Ser 23385
Val Thr 23390	Arg Ser Thr Phe	Lys 23395	Phe Thr Arg Leu	Thr Glu Gly Asn 23400
Glu Tyr 23405	Val Phe Arg Val	Ala 23410	Ala Thr Asn Arg	Phe Gly Ile Gly 23415
Ser Tyr 23420	Leu Gln Ser Glu	Val 23425	Ile Glu Cys Arg	Ser Ser Ile Arg 23430
Ile Pro 23435	Gly Pro Pro Glu	Thr 23440	Leu Gln Ile Phe	Asp Val Ser Arg 23445
Asp Gly 23450	Met Thr Leu Thr	Trp 23455	Tyr Pro Pro Glu	Asp Asp Gly Gly 23460
Ser Gln 23465	Val Thr Gly Tyr	Ile 23470	Val Glu Arg Lys	Glu Val Arg Ala 23475
Asp Arg 23480	Trp Val Arg Val	Asn 23485	Lys Val Pro Val	Thr Met Thr Arg 23490
Tyr Arg 23495	Ser Thr Gly Leu	Thr 23500	Glu Gly Leu Glu	Tyr Glu His Arg 23505

Val Thr 23510	Ala Ile Asn Ala Arg 23515	Gly Ser Gly Lys Pro 23520	Ser Arg Pro
Ser Lys 23525	Pro Ile Val Ala Met 23530	Asp Pro Ile Ala Pro 23535	Pro Gly Lys
Pro Gln 23540	Asn Pro Arg Val Thr 23545	Asp Thr Thr Arg Thr 23550	Ser Val Ser
Leu Ala 23555	Trp Ser Val Pro Glu 23560	Asp Glu Gly Gly Ser 23565	Lys Val Thr
Gly Tyr 23570	Leu Ile Glu Met Gln 23575	Lys Val Asp Gln His 23580	Glu Trp Thr
Lys Cys 23585	Asn Thr Thr Pro Thr 23590	Lys Ile Arg Glu Tyr 23595	Thr Leu Thr
His Leu 23600	Pro Gln Gly Ala Glu 23605	Tyr Arg Phe Arg Val 23610	Leu Ala Cys
Asn Ala 23615	Gly Gly Pro Gly Glu 23620	Pro Ala Glu Val Pro 23625	Gly Thr Val
Lys Val 23630	Thr Glu Met Leu Glu 23635	Tyr Pro Asp Tyr Glu 23640	Leu Asp Glu
Arg Tyr 23645	Gln Glu Gly Ile Phe 23650	Val Arg Gln Gly Gly 23655	Val Ile Arg
Leu Thr 23660	Ile Pro Ile Lys Gly 23665	Lys Pro Phe Pro Ile 23670	Cys Lys Trp
Thr Lys 23675	Glu Gly Gln Asp Ile 23680	Ser Lys Arg Ala Met 23685	Ile Ala Thr
Ser Glu 23690	Thr His Thr Glu Leu 23695	Val Ile Lys Glu Ala 23700	Asp Arg Gly
Asp Ser 23705	Gly Thr Tyr Asp Leu 23710	Val Leu Glu Asn Lys 23715	Cys Gly Lys
Lys Ala 23720	Val Tyr Ile Lys Val 23725	Arg Val Ile Gly Ser 23730	Pro Asn Ser

Pro Glu	Gly Pro Leu Glu Tyr	Asp Asp Ile Gln Val	Arg Ser Val
23735	23740	23745	
Arg Val	Ser Trp Arg Pro Pro	Ala Asp Asp Gly Gly	Ala Asp Ile
23750	23755	23760	
Leu Gly	Tyr Ile Leu Glu Arg	Arg Glu Val Pro Lys	Ala Ala Trp
23765	23770	23775	
Tyr Thr	Ile Asp Ser Arg Val	Arg Gly Thr Ser Leu	Val Val Lys
23780	23785	23790	
Gly Leu	Lys Glu Asn Val Glu	Tyr His Phe Arg Val	Ser Ala Glu
23795	23800	23805	
Asn Gln	Phe Gly Ile Ser Lys	Pro Leu Lys Ser Glu	Glu Pro Val
23810	23815	23820	
Thr Pro	Lys Thr Pro Leu Asn	Pro Pro Glu Pro Pro	Ser Asn Pro
23825	23830	23835	
Pro Glu	Val Leu Asp Val Thr	Lys Ser Ser Val Ser	Leu Ser Trp
23840	23845	23850	
Ser Arg	Pro Lys Asp Asp Gly	Gly Ser Arg Val Thr	Gly Tyr Tyr
23855	23860	23865	
Ile Glu	Arg Lys Glu Thr Ser	Thr Asp Lys Trp Val	Arg His Asn
23870	23875	23880	
Lys Thr	Gln Ile Thr Thr Thr	Met Tyr Thr Val Thr	Gly Leu Val
23885	23890	23895	
Pro Asp	Ala Glu Tyr Gln Phe	Arg Ile Ile Ala Gln	Asn Asp Val
23900	23905	23910	
Gly Leu	Ser Glu Thr Ser Pro	Ala Ser Glu Pro Val	Val Cys Lys
23915	23920	23925	
Asp Pro	Phe Asp Lys Pro Ser	Gln Pro Gly Glu Leu	Glu Ile Leu
23930	23935	23940	
Ser Ile	Ser Lys Asp Ser Val	Thr Leu Gln Trp Glu	Lys Pro Glu

23945		23950		23955
Cys Asp 23960	Gly Gly Lys Glu Ile	Leu Gly Tyr Trp Val 23965		Glu Tyr Arg 23970
Gln Ser 23975	Gly Asp Ser Ala Trp	Lys Lys Ser Asn Lys 23980		Glu Arg Ile 23985
Lys Asp 23990	Lys Gln Phe Thr Ile	Gly Gly Leu Leu Glu 23995		Ala Thr Glu 24000
Tyr Glu 24005	Phe Arg Val Phe Ala	Glu Asn Glu Thr Gly 24010		Leu Ser Arg 24015
Pro Arg 24020	Arg Thr Ala Met Ser	Ile Lys Thr Lys Leu 24025		Thr Ser Gly 24030
Glu Ala 24035	Pro Gly Ile Arg Lys	Glu Met Lys Asp Val 24040		Thr Thr Lys 24045
Leu Gly 24050	Glu Ala Ala Gln Leu	Ser Cys Gln Ile Val 24055		Gly Arg Pro 24060
Leu Pro 24065	Asp Ile Lys Trp Tyr	Arg Phe Gly Lys Glu 24070		Leu Ile Gln 24075
Ser Arg 24080	Lys Tyr Lys Met Ser	Ser Asp Gly Arg Thr 24085		His Thr Leu 24090
Thr Val 24095	Met Thr Glu Glu Gln	Glu Asp Glu Gly Val 24100		Tyr Thr Cys 24105
Ile Ala 24110	Thr Asn Glu Val Gly	Glu Val Glu Thr Ser 24115		Ser Lys Leu 24120
Leu Leu 24125	Gln Ala Thr Pro Gln	Phe His Pro Gly Tyr 24130		Pro Leu Lys 24135
Glu Lys 24140	Tyr Tyr Gly Ala Val	Gly Ser Thr Leu Arg 24145		Leu His Val 24150
Met Tyr 24155	Ile Gly Arg Pro Val	Pro Ala Met Thr Trp 24160		Phe His Gly 24165

Gln Lys 24170	Leu Leu Gln Asn Ser 24175	Glu Asn Ile Thr Ile 24180	Glu Asn Thr
Glu His 24185	Tyr Thr His Leu Val 24190	Met Lys Asn Val Gln 24195	Arg Lys Thr
His Ala 24200	Gly Lys Tyr Lys Val 24205	Gln Leu Ser Asn Val 24210	Phe Gly Thr
Val Asp 24215	Ala Ile Leu Asp Val 24220	Glu Ile Gln Asp Lys 24225	Pro Asp Lys
Pro Thr 24230	Gly Pro Ile Val Ile 24235	Glu Ala Leu Leu Lys 24240	Asn Ser Ala
Val Ile 24245	Ser Trp Lys Pro Pro 24250	Ala Asp Asp Gly Gly 24255	Ser Trp Ile
Thr Asn 24260	Tyr Val Val Glu Lys 24265	Cys Glu Ala Lys Glu 24270	Gly Ala Glu
Trp Gln 24275	Leu Val Ser Ser Ala 24280	Ile Ser Val Thr Thr 24285	Cys Arg Ile
Val Asn 24290	Leu Thr Glu Asn Ala 24295	Gly Tyr Tyr Phe Arg 24300	Val Ser Ala
Gln Asn 24305	Thr Phe Gly Ile Ser 24310	Asp Pro Leu Glu Val 24315	Ser Ser Val
Val Ile 24320	Ile Lys Ser Pro Phe 24325	Glu Lys Pro Gly Ala 24330	Pro Gly Lys
Pro Thr 24335	Ile Thr Ala Val Thr 24340	Lys Asp Ser Cys Val 24345	Val Ala Trp
Lys Pro 24350	Pro Ala Ser Asp Gly 24355	Gly Ala Lys Ile Arg 24360	Asn Tyr Tyr
Leu Glu 24365	Lys Arg Glu Lys Lys 24370	Gln Asn Lys Trp Ile 24375	Ser Val Thr
Thr Glu 24380	Glu Ile Arg Glu Thr 24385	Val Phe Ser Val Lys 24390	Asn Leu Ile

Glu Gly 24395	Leu Glu Tyr Glu Phe 24400	Arg Val Lys Cys Glu 24405	Asn Leu Gly
Gly Glu 24410	Ser Glu Trp Ser Glu 24415	Ile Ser Glu Pro Ile 24420	Thr Pro Lys
Ser Asp 24425	Val Pro Ile Gln Ala 24430	Pro His Phe Lys Glu 24435	Glu Leu Arg
Asn Leu 24440	Asn Val Arg Tyr Gln 24445	Ser Asn Ala Thr Leu 24450	Val Cys Lys
Val Thr 24455	Gly His Pro Lys Pro 24460	Ile Val Lys Trp Tyr 24465	Arg Gln Gly
Lys Glu 24470	Ile Ile Ala Asp Gly 24475	Leu Lys Tyr Arg Ile 24480	Gln Glu Phe
Lys Gly 24485	Gly Tyr His Gln Leu 24490	Ile Ile Ala Ser Val 24495	Thr Asp Asp
Asp Ala 24500	Thr Val Tyr Gln Val 24505	Arg Ala Thr Asn Gln 24510	Gly Gly Ser
Val Ser 24515	Gly Thr Ala Ser Leu 24520	Glu Val Glu Val Pro 24525	Ala Lys Ile
His Leu 24530	Pro Lys Thr Leu Glu 24535	Gly Met Gly Ala Val 24540	His Ala Leu
Arg Gly 24545	Glu Val Val Ser Ile 24550	Lys Ile Pro Phe Ser 24555	Gly Lys Pro
Asp Pro 24560	Val Ile Thr Trp Gln 24565	Lys Gly Gln Asp Leu 24570	Ile Asp Asn
Asn Gly 24575	His Tyr Gln Val Ile 24580	Val Thr Arg Ser Phe 24585	Thr Ser Leu
Val Phe 24590	Pro Asn Gly Val Glu 24595	Arg Lys Asp Ala Gly 24600	Phe Tyr Val
Val Cys	Ala Lys Asn Arg Phe	Gly Ile Asp Gln Lys	Thr Val Glu

24605 24610 24615
 Leu Asp Val Ala Asp Val Pro Asp Pro Pro Arg Gly Val Lys Val
 24620 24625 24630
 Ser Asp Ala Ser Arg Asp Ser Val Asn Leu Thr Trp Thr Glu Pro
 24635 24640 24645
 Ala Ser Asp Gly Gly Ser Lys Ile Thr Asn Tyr Ile Val Glu Lys
 24650 24655 24660
 Cys Ala Thr Thr Ala Glu Arg Trp Leu Arg Val Gly Gln Ala Arg
 24665 24670 24675
 Glu Thr Arg Tyr Thr Val Ile Asn Leu Phe Gly Lys Thr Ser Tyr
 24680 24685 24690
 Gln Phe Arg Val Ile Ala Glu Asn Lys Phe Gly Leu Ser Lys Pro
 24695 24700 24705
 Ser Glu Pro Ser Glu Pro Thr Ile Thr Lys Glu Asp Lys Thr Arg
 24710 24715 24720
 Ala Met Asn Tyr Asp Glu Glu Val Asp Glu Thr Arg Glu Val Ser
 24725 24730 24735
 Met Thr Lys Ala Ser His Ser Ser Thr Lys Glu Leu Tyr Glu Lys
 24740 24745 24750
 Tyr Met Ile Ala Glu Asp Leu Gly Arg Gly Glu Phe Gly Ile Val
 24755 24760 24765
 His Arg Cys Val Glu Thr Ser Ser Lys Lys Thr Tyr Met Ala Lys
 24770 24775 24780
 Phe Val Lys Val Lys Gly Thr Asp Gln Val Leu Val Lys Lys Glu
 24785 24790 24795
 Ile Ser Ile Leu Asn Ile Ala Arg His Arg Asn Ile Leu His Leu
 24800 24805 24810
 His Glu Ser Phe Glu Ser Met Glu Glu Leu Val Met Ile Phe Glu
 24815 24820 24825

Phe Ile 24830	Ser Gly Leu Asp Ile 24835	Phe Glu Arg Ile Asn 24840	Thr Ser Ala
Phe Glu 24845	Leu Asn Glu Arg Glu 24850	Ile Val Ser Tyr Val 24855	His Gln Val
Cys Glu 24860	Ala Leu Gln Phe Leu 24865	His Ser His Asn Ile 24870	Gly His Phe
Asp Ile 24875	Arg Pro Glu Asn Ile 24880	Ile Tyr Gln Thr Arg 24885	Arg Ser Ser
Thr Ile 24890	Lys Ile Ile Glu Phe 24895	Gly Gln Ala Arg Gln 24900	Leu Lys Pro
Gly Asp 24905	Asn Phe Arg Leu Leu 24910	Phe Thr Ala Pro Glu 24915	Tyr Tyr Ala
Pro Glu 24920	Val His Gln His Asp 24925	Val Val Ser Thr Ala 24930	Thr Asp Met
Trp Ser 24935	Leu Gly Thr Leu Val 24940	Tyr Val Leu Leu Ser 24945	Gly Ile Asn
Pro Phe 24950	Leu Ala Glu Thr Asn 24955	Gln Gln Ile Ile Glu 24960	Asn Ile Met
Asn Ala 24965	Glu Tyr Thr Phe Asp 24970	Glu Glu Ala Phe Lys 24975	Glu Ile Ser
Ile Glu 24980	Ala Met Asp Phe Val 24985	Asp Arg Leu Leu Val 24990	Lys Glu Arg
Lys Ser 24995	Arg Met Thr Ala Ser 25000	Glu Ala Leu Gln His 25005	Pro Trp Leu
Lys Gln 25010	Lys Ile Glu Arg Val 25015	Ser Thr Lys Val Ile 25020	Arg Thr Leu
Lys His 25025	Arg Arg Tyr Tyr His 25030	Thr Leu Ile Lys Lys 25035	Asp Leu Asn
Met Val 25040	Val Ser Ala Ala Arg 25045	Ile Ser Cys Gly Gly 25050	Ala Ile Arg

Ser	Gln	Lys	Gly	Val	Ser	Val	Ala	Lys	Val	Lys	Val	Ala	Ser	Ile
25055						25060					25065			
Glu	Ile	Gly	Pro	Val	Ser	Gly	Gln	Ile	Met	His	Ala	Val	Gly	Glu
25070						25075					25080			
Glu	Gly	Gly	His	Val	Lys	Tyr	Val	Cys	Lys	Ile	Glu	Asn	Tyr	Asp
25085						25090					25095			
Gln	Ser	Thr	Gln	Val	Thr	Trp	Tyr	Phe	Gly	Val	Arg	Gln	Leu	Glu
25100						25105					25110			
Asn	Ser	Glu	Lys	Tyr	Glu	Ile	Thr	Tyr	Glu	Asp	Gly	Val	Ala	Ile
25115						25120					25125			
Leu	Tyr	Val	Lys	Asp	Ile	Thr	Lys	Leu	Asp	Asp	Gly	Thr	Tyr	Arg
25130						25135					25140			
Cys	Lys	Val	Val	Asn	Asp	Tyr	Gly	Glu	Asp	Ser	Ser	Tyr	Ala	Glu
25145						25150					25155			
Leu	Phe	Val	Lys	Gly	Val	Arg	Glu	Val	Tyr	Asp	Tyr	Tyr	Cys	Arg
25160						25165					25170			
Arg	Thr	Met	Lys	Lys	Ile	Lys	Arg	Arg	Thr	Asp	Thr	Met	Arg	Leu
25175						25180					25185			
Leu	Glu	Arg	Pro	Pro	Glu	Phe	Thr	Leu	Pro	Leu	Tyr	Asn	Lys	Thr
25190						25195					25200			
Ala	Tyr	Val	Gly	Glu	Asn	Val	Arg	Phe	Gly	Val	Thr	Ile	Thr	Val
25205						25210					25215			
His	Pro	Glu	Pro	His	Val	Thr	Trp	Tyr	Lys	Ser	Gly	Gln	Lys	Ile
25220						25225					25230			
Lys	Pro	Gly	Asp	Asn	Asp	Lys	Lys	Tyr	Thr	Phe	Glu	Ser	Asp	Lys
25235						25240					25245			
Gly	Leu	Tyr	Gln	Leu	Thr	Ile	Asn	Ser	Val	Thr	Thr	Asp	Asp	Asp
25250						25255					25260			
Ala	Glu	Tyr	Thr	Val	Val	Ala	Arg	Asn	Lys	Tyr	Gly	Glu	Asp	Ser

25265		25270		25275
Cys Lys	Ala Lys Leu Thr	Val	Thr Leu His Pro	Pro Pro Thr Asp
25280		25285		25290
Ser Thr	Leu Arg Pro Met	Phe	Lys Arg Leu Leu	Ala Asn Ala Glu
25295		25300		25305
Cys Gln	Glu Gly Gln Ser	Val	Cys Phe Glu Ile	Arg Val Ser Gly
25310		25315		25320
Ile Pro	Pro Pro Thr Leu	Lys	Trp Glu Lys Asp	Gly Gln Pro Leu
25325		25330		25335
Ser Leu	Gly Pro Asn Ile	Glu	Ile Ile His Glu	Gly Leu Asp Tyr
25340		25345		25350
Tyr Ala	Leu His Ile Arg	Asp	Thr Leu Pro Glu	Asp Thr Gly Tyr
25355		25360		25365
Tyr Arg	Val Thr Ala Thr	Asn	Thr Ala Gly Ser	Thr Ser Cys Gln
25370		25375		25380
Ala His	Leu Gln Val Glu	Arg	Leu Arg Tyr Lys	Lys Gln Glu Phe
25385		25390		25395
Lys Ser	Lys Glu Glu His	Glu	Arg His Val Gln	Lys Gln Ile Asp
25400		25405		25410
Lys Thr	Leu Arg Met Ala	Glu	Ile Leu Ser Gly	Thr Glu Ser Val
25415		25420		25425
Pro Leu	Thr Gln Val Ala	Lys	Glu Ala Leu Arg	Glu Ala Ala Val
25430		25435		25440
Leu Tyr	Lys Pro Ala Val	Ser	Thr Lys Thr Val	Lys Gly Glu Phe
25445		25450		25455
Arg Leu	Glu Ile Glu Glu	Lys	Lys Glu Glu Arg	Lys Leu Arg Met
25460		25465		25470
Pro Tyr	Asp Val Pro Glu	Pro	Arg Lys Tyr Lys	Gln Thr Thr Ile
25475		25480		25485

Glu Glu	Asp Gln Arg Ile	Lys	Gln Phe Val Pro	Met	Ser Asp Met
25490		25495		25500	
Lys Trp	Tyr Lys Lys Ile	Arg	Asp Gln Tyr Glu	Met	Pro Gly Lys
25505		25510		25515	
Leu Asp	Arg Val Val Gln	Lys	Arg Pro Lys Arg	Ile	Arg Leu Ser
25520		25525		25530	
Arg Trp	Glu Gln Phe Tyr	Val	Met Pro Leu Pro	Arg	Ile Thr Asp
25535		25540		25545	
Gln Tyr	Arg Pro Lys Trp	Arg	Ile Pro Lys Leu	Ser	Gln Asp Asp
25550		25555		25560	
Leu Glu	Ile Val Arg Pro	Ala	Arg Arg Arg Thr	Pro	Ser Pro Asp
25565		25570		25575	
Tyr Asp	Phe Tyr Tyr Arg	Pro	Arg Arg Arg Ser	Leu	Gly Asp Ile
25580		25585		25590	
Ser Asp	Glu Glu Leu Leu	Leu	Pro Ile Asp Asp	Tyr	Leu Ala Met
25595		25600		25605	
Lys Arg	Thr Glu Glu Glu	Arg	Leu Arg Leu Glu	Glu	Glu Leu Glu
25610		25615		25620	
Leu Gly	Phe Ser Ala Ser	Pro	Pro Ser Arg Ser	Pro	Pro His Phe
25625		25630		25635	
Glu Leu	Ser Ser Leu Arg	Tyr	Ser Ser Pro Gln	Ala	His Val Lys
25640		25645		25650	
Val Glu	Glu Thr Arg Lys	Asn	Phe Arg Tyr Ser	Thr	Tyr His Ile
25655		25660		25665	
Pro Thr	Lys Ala Glu Ala	Ser	Thr Ser Tyr Ala	Glu	Leu Arg Glu
25670		25675		25680	
Arg His	Ala Gln Ala Ala	Tyr	Arg Gln Pro Lys	Gln	Arg Gln Arg
25685		25690		25695	
Ile Met	Ala Glu Arg Glu	Asp	Glu Glu Leu Leu	Arg	Pro Val Thr
25700		25705		25710	

Thr	Thr	Gln	His	Leu	Ser	Glu	Tyr	Lys	Ser	Glu	Leu	Asp	Phe	Met
25715						25720					25725			
Ser	Lys	Glu	Glu	Lys	Ser	Arg	Lys	Lys	Ser	Arg	Arg	Gln	Arg	Glu
25730						25735					25740			
Val	Thr	Glu	Ile	Thr	Glu	Ile	Glu	Glu	Glu	Tyr	Glu	Ile	Ser	Lys
25745						25750					25755			
His	Ala	Gln	Arg	Glu	Ser	Ser	Ser	Ser	Ala	Ser	Arg	Leu	Leu	Arg
25760						25765					25770			
Arg	Arg	Arg	Ser	Leu	Ser	Pro	Thr	Tyr	Ile	Glu	Leu	Met	Arg	Pro
25775						25780					25785			
Val	Ser	Glu	Leu	Ile	Arg	Ser	Arg	Pro	Gln	Pro	Ala	Glu	Glu	Tyr
25790						25795					25800			
Glu	Asp	Asp	Thr	Glu	Arg	Arg	Ser	Pro	Thr	Pro	Glu	Arg	Thr	Arg
25805						25810					25815			
Pro	Arg	Ser	Pro	Ser	Pro	Val	Ser	Ser	Glu	Arg	Ser	Leu	Ser	Arg
25820						25825					25830			
Phe	Glu	Arg	Ser	Ala	Arg	Phe	Asp	Ile	Phe	Ser	Arg	Tyr	Glu	Ser
25835						25840					25845			
Met	Lys	Ala	Ala	Leu	Lys	Thr	Gln	Lys	Thr	Ser	Glu	Arg	Lys	Tyr
25850						25855					25860			
Glu	Val	Leu	Ser	Gln	Gln	Pro	Phe	Thr	Leu	Asp	His	Ala	Pro	Arg
25865						25870					25875			
Ile	Thr	Leu	Arg	Met	Arg	Ser	His	Arg	Val	Pro	Cys	Gly	Gln	Asn
25880						25885					25890			
Thr	Arg	Phe	Ile	Leu	Asn	Val	Gln	Ser	Lys	Pro	Thr	Ala	Glu	Val
25895						25900					25905			
Lys	Trp	Tyr	His	Asn	Gly	Val	Glu	Leu	Gln	Glu	Ser	Ser	Lys	Ile
25910						25915					25920			
His	Tyr	Thr	Asn	Thr	Ser	Gly	Val	Leu	Thr	Leu	Glu	Ile	Leu	Asp

25925		25930		25935
Cys His 25940	Thr Asp Asp Ser Gly 25945	Thr Tyr Arg Ala Val 25950	Cys Thr Asn	
Tyr Lys 25955	Gly Glu Ala Ser Asp 25960	Tyr Ala Thr Leu Asp 25965	Val Thr Gly	
Gly Asp 25970	Tyr Thr Thr Tyr Ala 25975	Ser Gln Arg Arg Asp 25980	Glu Glu Val	
Pro Arg 25985	Ser Val Phe Pro Glu 25990	Leu Thr Arg Thr Glu 25995	Ala Tyr Ala	
Val Pro 26000	Ser Phe Lys Lys Thr 26005	Ser Glu Met Glu Ala 26010	Ser Ser Ser	
Val Arg 26015	Glu Val Lys Ser Gln 26020	Met Thr Glu Thr Arg 26025	Glu Ser Leu	
Ser Ser 26030	Tyr Glu His Ser Ala 26035	Ser Ala Glu Met Lys 26040	Ser Ala Ala	
Leu Glu 26045	Glu Lys Ser Leu Glu 26050	Glu Lys Ser Thr Thr 26055	Arg Lys Ile	
Lys Thr 26060	Thr Leu Ala Ala Arg 26065	Ile Leu Thr Lys Pro 26070	Arg Ser Met	
Thr Val 26075	Tyr Glu Gly Glu Ser 26080	Ala Arg Phe Ser Cys 26085	Asp Thr Asp	
Gly Glu 26090	Pro Val Pro Thr Val 26095	Thr Trp Leu Arg Lys 26100	Gly Gln Val	
Leu Ser 26105	Thr Ser Ala Arg His 26110	Gln Val Thr Thr Thr 26115	Lys Tyr Lys	
Ser Thr 26120	Phe Glu Ile Ser Ser 26125	Val Gln Ala Ser Asp 26130	Glu Gly Asn	
Tyr Ser 26135	Val Val Val Glu Asn 26140	Ser Glu Gly Lys Gln 26145	Glu Ala Glu	

Phe Thr 26150	Leu Thr Ile Gln Lys 26155	Ala Arg Val Thr Glu 26160	Lys Ala Val
Thr Ser 26165	Pro Pro Arg Val Lys 26170	Ser Pro Glu Pro Arg 26175	Val Lys Ser
Pro Glu 26180	Ala Val Lys Ser Pro 26185	Lys Arg Val Lys Ser 26190	Pro Glu Pro
Ser His 26195	Pro Lys Ala Val Ser 26200	Pro Thr Glu Thr Lys 26205	Pro Thr Pro
Arg Glu 26210	Lys Val Gln His Leu 26215	Pro Val Ser Ala Pro 26220	Pro Lys Ile
Thr Gln 26225	Phe Leu Lys Ala Glu 26230	Ala Ser Lys Glu Ile 26235	Ala Lys Leu
Thr Cys 26240	Val Val Glu Ser Ser 26245	Val Leu Arg Ala Lys 26250	Glu Val Thr
Trp Tyr 26255	Lys Asp Gly Lys Lys 26260	Leu Lys Glu Asn Gly 26265	His Phe Gln
Phe His 26270	Tyr Ser Ala Asp Gly 26275	Thr Tyr Glu Leu Lys 26280	Ile Asn Asn
Leu Thr 26285	Glu Ser Asp Gln Gly 26290	Glu Tyr Val Cys Glu 26295	Ile Ser Gly
Glu Gly 26300	Gly Thr Ser Lys Thr 26305	Asn Leu Gln Phe Met 26310	Gly Gln Ala
Phe Lys 26315	Ser Ile His Glu Lys 26320	Val Ser Lys Ile Ser 26325	Glu Thr Lys
Lys Ser 26330	Asp Gln Lys Thr Thr 26335	Glu Ser Thr Val Thr 26340	Arg Lys Thr
Glu Pro 26345	Lys Ala Pro Glu Pro 26350	Ile Ser Ser Lys Pro 26355	Val Ile Val
Thr Gly 26360	Leu Gln Asp Thr Thr 26365	Val Ser Ser Asp Ser 26370	Val Ala Lys

Phe	Ala	Val	Lys	Ala	Thr	Gly	Glu	Pro	Arg	Pro	Thr	Ala	Ile	Trp
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Thr	Lys	Asp	Gly	Lys	Ala	Ile	Thr	Gln	Gly	Gly	Lys	Tyr	Lys	Leu
26390						26395					26400			
Ser	Glu	Asp	Lys	Gly	Gly	Phe	Phe	Leu	Glu	Ile	His	Lys	Thr	Asp
26405						26410					26415			
Thr	Ser	Asp	Ser	Gly	Leu	Tyr	Thr	Cys	Thr	Val	Lys	Asn	Ser	Ala
26420						26425					26430			
Gly	Ser	Val	Ser	Ser	Ser	Cys	Lys	Leu	Thr	Ile	Lys	Ala	Ile	Lys
26435						26440					26445			
Asp	Thr	Glu	Ala	Gln	Lys	Val	Ser	Thr	Gln	Lys	Thr	Ser	Glu	Ile
26450						26455					26460			
Thr	Pro	Gln	Lys	Lys	Ala	Val	Val	Gln	Glu	Glu	Ile	Ser	Gln	Lys
26465						26470					26475			
Ala	Leu	Arg	Ser	Glu	Glu	Ile	Lys	Met	Ser	Glu	Ala	Lys	Ser	Gln
26480						26485					26490			
Glu	Lys	Leu	Ala	Leu	Lys	Glu	Glu	Ala	Ser	Lys	Val	Leu	Ile	Ser
26495						26500					26505			
Glu	Glu	Val	Lys	Lys	Ser	Ala	Ala	Thr	Ser	Leu	Glu	Lys	Ser	Ile
26510						26515					26520			
Val	His	Glu	Glu	Ile	Thr	Lys	Thr	Ser	Gln	Ala	Ser	Glu	Glu	Val
26525						26530					26535			
Arg	Thr	His	Ala	Glu	Ile	Lys	Ala	Phe	Ser	Thr	Gln	Met	Ser	Ile
26540						26545					26550			
Asn	Glu	Gly	Gln	Arg	Leu	Val	Leu	Lys	Ala	Asn	Ile	Ala	Gly	Ala
26555						26560					26565			
Thr	Asp	Val	Lys	Trp	Val	Leu	Asn	Gly	Val	Glu	Leu	Thr	Asn	Ser
26570						26575					26580			
Glu	Glu	Tyr	Arg	Tyr	Gly	Val	Ser	Gly	Ser	Asp	Gln	Thr	Leu	Thr

26585		26590		26595
Ile Lys Gln Ala Ser His Arg Asp Glu Gly Ile Leu Thr Cys Ile	26600	26605	26610	
Ser Lys Thr Lys Glu Gly Ile Val Lys Cys Gln Tyr Asp Leu Thr	26615	26620	26625	
Leu Ser Lys Glu Leu Ser Asp Ala Pro Ala Phe Ile Ser Gln Pro	26630	26635	26640	
Arg Ser Gln Asn Ile Asn Glu Gly Gln Asn Val Leu Phe Thr Cys	26645	26650	26655	
Glu Ile Ser Gly Glu Pro Ser Pro Glu Ile Glu Trp Phe Lys Asn	26660	26665	26670	
Asn Leu Pro Ile Ser Ile Ser Ser Asn Val Ser Ile Ser Arg Ser	26675	26680	26685	
Arg Asn Val Tyr Ser Leu Glu Ile Arg Asn Ala Ser Val Ser Asp	26690	26695	26700	
Ser Gly Lys Tyr Thr Ile Lys Ala Lys Asn Phe Arg Gly Gln Cys	26705	26710	26715	
Ser Ala Thr Ala Ser Leu Met Val Leu Pro Leu Val Glu Glu Pro	26720	26725	26730	
Ser Arg Glu Val Val Leu Arg Thr Ser Gly Asp Thr Ser Leu Gln	26735	26740	26745	
Gly Ser Phe Ser Ser Gln Ser Val Gln Met Ser Ala Ser Lys Gln	26750	26755	26760	
Glu Ala Ser Phe Ser Ser Phe Ser Ser Ser Ser Ala Ser Ser Met	26765	26770	26775	
Thr Glu Met Lys Phe Ala Ser Met Ser Ala Gln Ser Met Ser Ser	26780	26785	26790	
Met Gln Glu Ser Phe Val Glu Met Ser Ser Ser Ser Phe Met Gly	26795	26800	26805	

Ile Ser Asn Met Thr Gln Leu Glu Ser Ser Thr Ser Lys Met Leu
26810 26815 26820

Lys Ala Gly Ile Arg Gly Ile Pro Pro Lys Ile Glu Ala Leu Pro
26825 26830 26835

Ser Asp Ile Ser Ile Asp Glu Gly Lys Val Leu Thr Val Ala Cys
26840 26845 26850

Ala Phe Thr Gly Glu Pro Thr Pro Glu Val Thr Trp Ser Cys Gly
26855 26860 26865

Gly Arg Lys Ile His Ser Gln Glu Gln Gly Arg Phe His Ile Glu
26870 26875 26880

Asn Thr Asp Asp Leu Thr Thr Leu Ile Ile Met Asp Val Gln Lys
26885 26890 26895

Gln Asp Gly Gly Leu Tyr Thr Leu Ser Leu Gly Asn Glu Phe Gly
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Ser Asp Ser Ala Thr Val Asn Ile His Ile Arg Ser Ile
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